SEE
FOLLOWING
NOTE

VOIR
NOTE
CI-APRÈS

PARTS OF THE ORIGINAL DOCUMENT ARE OF POOR REPRODUCTIVE QUALITY.

MICROMEDIA LIMITED HAS ATTEMPTED TO PRODUCE THE BEST POSSIBLE COPY.

CERTAINES PARTIES DU DOCUMENT ORIGINAL SONT DE PIÈTRE QUALITÈ DE REPRODUCTION.

MICROMEDIA LTEE A ESSAYEE DE PROCURER LE MEILLEUR EXEMPLAIRE POSSIBLE.

Volume

1

ENVIRONMENTAL ASSESSMENT PANEL
REVIEWING THE
NORTHUMBERLAND STRAIT CROSSING PROJECT

COMPILATION OF SUBMISSIONS RECEIVED PRIOR TO AND DURING FINAL PUBLIC HEARINGS HELD TO DISCUSS THE NORTHUMBERLAND STRAIT CROSSING PROJECT

VOLUME 1

APRIL 1990

90-05929/

VOLUME 1

TABLE OF CONTENTS

COMPILATION OF SUBMISSIONS RECEIVED PRIOR TO AND DURING FINAL PUBLIC HEARINGS HELD TO DISCUSS THE NORTHUMBERLAND STRAIT CROSSING PROJECT

1. Dr. Marilyn Trenholme, MLA Tantramar, 7 pgs.
2. William R. Campbell, Mayor of Sackville, 3 pgs.
3. Sackville Economic Development Corporation - Bonnie Lerette, 2 pgs.
4. Sharon Allen, 3 pgs.
5. Little Cape Fishermen's Association - Bill Cook, 4 pgs.
6. Botsford Professional Fisherman's Association - Reginald Pauley, 5 pgs.
7. William Casey, M.P. Cumberland Colchester, 11 pgs.
8. Amherst Area Development Commission - Bob Nixon, 7 pgs.
9. Atlantic Canada Owner Operators Association Inc. - Ed. Wesselius, 4 pgs.
10. Atlantic Building Supply Dealers Association - John J. Ward, 13 pgs.
11. Atlantic Provinces Road Builders Association - Jim Steeves, 5 pgs.
12. Hon. Aldéa Landry, Minister of Intergovernmental Affairs and Hon. Al Lacey - Minister of Commerce and Technology for Province of N.B., 7 pgs.
13. Moncton Northeast Construction Association - Wayne Chambers, 4 pgs.
14. Maritime Fishermen's Union - Mike Belliveau, 6 pgs.
15. Road Builders Association of N.B. - Wayne Chambers, 4 pgs.
16. New Brunswick Industrial Benefits Committee - Bruce H. Daniel, 1 pg.
17. Canadian Brotherhood of Railway, Transport and General Workers - Tom Barron, 8 pgs.
18. Steve Jones, 1 pg.
19. La Commission d'aménagement Beaubassin - Armand Robichaud, 5 pgs.
20. a. Atlantic Provinces Chamber of Commerce - Noella LeBrun, 7 pgs.
    b. Chambre de Commerce des Provinces de l'Atlantique, 7 pgs.
21. George S. Rideout, M.P. Moncton, 36 pgs.
22. a. South East Economic Commission - Raymond LeBlanc, 20 pgs.
    b. Commission Économique du Sud-Est, 24 pgs.
23. Michael J. McGeoghegan, 6 pgs.
24. Allison Drake, 5 pgs.
25. Kip Smith, 10 pgs.
26. Michael R. Nicholson, 2 pgs.
27. Edith Perry, 4 pgs.
28. Dr. Robert Perry, 3 pgs.
29. Environmental Coalition of P.E.I. - Gary Schneider, 3 pgs.
30. Donald M. Deacon, 7 pgs.
31. Gateway Tourist Association - Carmen Simmons, 2 pgs.
32. Therese D'Amour, 1 pg.
33. Reg Pendergast, 15 pgs.
34. West Prince Industrial Commission - Ed Trail, 3 pgs.
35. West Prince Tourist Association - John Cudmore, 4 pgs.
36. Warren Ellis, 4 pgs.

Dr. Marilyn Trenholme
Tantramar M.L.A
Box 570, Sackville, N.B
E0A 3C0

rec'd
Mar. 6/90

Fixed Link-Presentation to the Review Assessment Panel

It is a privelege for me to address this Environmental Assessment Panel on the Northumberland Strait Crossing Project. As MLA for the part of New Brunswick which would be most directly affected by such a project, I wish to welcome all the members of the Panel and your support staff to Tantramar. I wish also to welcome any visitors to our area tonight and to express my appreciation to the members of the press for their interest.

Before offering for your consideration some of the concerns of the residents of Tantramar, I would like to complement the Government of Canada-especially Public Works Canada-for the thoroughness of its approach to this project.I have been immensely impressed by the meticulous step-by-step methodology used in the development of this project and the large measure of input afforded to the public and all interested groups. It is reassuring to observe that government is willing to consider every aspect of an undertaking before making any decision about a project with such an enormous socio-economic impact as this proposed crossing represents. Similarly, I have been heartened by the cooperation between the Government of Canada and the Government of New Brunswick and that of Prince Edward Island. Beyond this, I know that the Government of New Brunswick, of which I am proud to be a member, has taken extraordinary steps to ensure that the citizens of this area have had opportunities to learn about the project, to raise issues important to them and to participate meaningfully throughout the process to date. On my part, I have used public forums to choose community representatives for local Fixed Link Committees and have invited the three municipalities in my constituency-Dorchester, Sackville, and Port Elgin-to become full partners in these committees. I am aware that this process needs to be improved and updated and I will address this matter in the near future. The most important thing for me is that the voice of the residents of Tantramar is heard throughout the life of this project. I would like to take this opportunity to publicly thank all those citizens who have given their time already for this purpose.

On behalf of the people of Tantramar, I would like to acknowledge the generosity of the Premier of New Brunswick and of our Government in proposing that a citizens' group travel to France to study two fixed crossings - a bridge and a tunnel. On Monday, March 1,1990 approximately 100 local residents gathered here in the East Botsford Recreation Centre to hear the report of the citizens from Tantramar and Cape Pele along with the Government officials who visited France in January 1990.

This meeting, as well as discussions with many of our citizens about the proposed fixed crossings, has given me the basis which I will use tonight to present some of the outstanding issues which concern the people of Tantramar. I will outline these issues in the briefest way possible.

First, it is imperative that both the Government of Canada and the Government of New Brunswick give full attention to the fact that this section of New Brunswick-especially Murray Corner, Bayfield and Cape Tormentine-would experience an enormous direct socio-economic impact from such a project. Radiating from these three communities the impact would extend to Port Elgin, Sackville,Dorchester,Cape Pele, Shediac and the Membramcook region as well as all the other small villages in this section of southeast New Brunswick. The study and the report of Overseas Canadian highlighted many of these concerns and challenges and made predictions for the present and future. However, despite the obvious need for individual and collective initiative to achieve the full potential of any such project, many of our citizens in this area are still not convinced that their situation has been addressed satisfactorily, and certainly not as extensively as that of the residents of Prince Edward Island who would be affected. References in a number of documents point to this apparent lack of equality in the consideration given to the residents of the two provinces directly involved by the proposed Fixed Link project.

On behalf of all the people of Tantramar, I want to say publicly and for the record that we want to be certain that we are and will continue to be full partners in all decisions affecting our area and that our fishermen, our ferry workers, our land owners and our business people are given equal attention with the people of Prince Edward Island.

At this point,I wish to raise several points which have not been answered satisfactorily for the people of Tantramar.

The environment- using this term in its broadest sense- is the overriding issue in this whole project. This includes the fishery, the wildlife habitat at Cape Jourimain, agriculture and indeed the whole way of life of our communities. Your panel must be satisifled that each of these concerns is addressed competently. We fear a boom and bust cycle but we are willing to work closely with Government and with any developer to achieve maximal opportunities while protecting the fabric of our society and our economy and ensuring that no major environmental crisis results. I trust that environmental groups from this area will make presentations of their own to address in more detail and with greater specificity some of the points which I have mentioned.

Our fishermen seem to be less reluctant than before to accept the concept of a bridge for the fixed crossing. However, their position is quite adamant that if a bridge is to be built that every detail of the design, construction, methodology and timetable be studied and planned with the intention of minimizing any potential negative impact on the fishery. Such features as size of piers and distance between piers, degree of curve of the bridge and construction techniques- to mention only a few- all could affect the fishing industry. It is imperative that these factors be just as important in the design process as costs, safety,durability and beauty.

Our fishermen are still not satisfied that the issue of compensation for any losses that might be incurred as a result of this project has been addressed adequately. I refer to the presentation of Hon. Fernand Robichaud M.P. for Beausejour during the preliminary public hearings in which he outlined in some detail the requests being made by our fishermen towards a fair compensation program in the event of any losses which they might suffer as a result of this project both during the construction phase and afterwards. I request your wholehearted support of our Fisfermen's Associations in the review and planning work underway and I ask you to involve them directly much more often than has happened in the past.

Next, I would like to volve my great concern for the fate of the employees of Marine Atlantic who are residents of Tantarmar. These employees do not believe that their future is being seriously addressed by everyone concerned with this proposed project. I am proud to say that most of these families are determined to continue to make their home in Tantramar. Having said this, many of our ferry workers fear an uncertain future. Once again, there may have appeared to be a greater conmcern for P.E.I. workers than for those from N.B. I urge both our Federal and Provincial governments to meet with representatives of Marine Atlantic at Cape Tormentine to explore the topics which are of crucial importance to them and to their future.

Apart from the fishermen and the ferry workers, there is in Tantramar an uneasy feeling on the part of at least some small entrepreneurs regarding the impact of such a megaproject on the labour force. Would a small employer such as a small fish processing plant be able to compete with a large company during the construction phase? If not, what would happen to the small entrepreneur? Could a general instability result in the labout force and what would be the longterm impact?

Despite these concerns, it would be inaccurate to give the Panel the impression that the people of Tantramar anticipate an overall negative impact on the workforce. Instead, we are exceedingly hopeful that hundreds of jobs would become available right here for the residents of this constituency. We would expect and demand to share first place in the selection of labourers to the extent that our workers have the skills required. In this respect, we will again be asking the N.B. Government to establish specific training programs for prospective employees on the fixed crossing project. We have had assurances from our Government that such programs are feasible and we urge the Department of Advanced Education and Training to begin the process of implementing this training well in advance of any startup of work for a fixed crossing.

Let me conclude by stating that there is a growing level of support in Tantramar for a fixed crossing for the Northumberland Strait, there is a greater acceptance of a bridge as a favoured concept for the crossing, and there is a heightened anticipation of benefits to our area for the labour force, for businesses, for tourism, for highway development and for the economy in general. We realize that to reap the full benefits of this once in a lifetime megaproject for our area an enormous amount of local initiative will be required with the full cooperation of our local Government at the municipal level.

If the Northumberland Strait Fixed Crossing Project becomes a reality, the people of Tantramar are determined that their concerns will be addressed, that their interests will be protected and that their future will be assured.

Thank you, Ladies and Gentlemen, for allowing me to participate in this Review Panel tonight.

SACKVILLE
NEW BRUNSWICK

POST OFFICE BOX 660
SACKVILLE
NEW BRUNSWICK
CANADA E0A 3C0

TELEPHONE 506 536 0990
FACSIMILE 506 536 3219

A PRESENTATION
TO THE ASSESSMENT PANEL
REVIEWING THE
NORTHUMBERLAND STRAIT CROSSING PROJECT
FROM SACKVILLE, N. B.

PRESENTED BY
MAYOR W. R. CAMPBELL
MARCH 12, 1990

Where You Belong

Panelists, Honoured Guests, Ladies and Gentlemen:

On behalf of the Town of Sackville, I wish to register our profound interest in the ultimate success of the fixed link project to P.E.I., via a bridge, consistent with appropriate consideration for environmental aspects and the socio-economic issues.

As such, given the extent of environmental studies conducted to date and the findings which basically indicate that any, and if any, negative effects occur, they will be short term (during construction).

We have therefore adopted a positive attitude and are looking forward to the start up of the fixed crossing, in the form of a bridge, which will boost the economy of both the focus area and the surrounding region. From recent studies concerning the direct employment and income impact on the study area, it has been suggested that during the construction period, while the ferry operation is being fully maintained, there will be an additional 1,250 people working in the New Brunswick area and that virtually anyone in this area who is willing and able to work will have a job. The availability of this number of jobs will have a tremendous impact on our area, which currently has a very high unemployment rate.

In addition to jobs created by construction, there will also indirectly be an availability of jobs in a host of other areas, including catering, security, materials, transportation, etc., all of which will serve to create new business for our merchants and also provide an opportunity for the expansion of existing businesses and the creation of new service industries. In conjunction with this, there will be an opportunity for the further development of community services which already exist in the Sackville area including sewer and water, fire and police protection, hospital facilities, and educational and recreational facilities.

It is our hope that potential training, with regard to construction, the operation of heavy equipment and other trades, will be provided to a maximum degree for people in our area, and wish to underline the potential for a training centre in heavy equipment operation for the area, as well as other training programs. It is only through such programs that workers in this region can benefit from the impact on employment which the construction and maintenance will provide.

The bridge will also provide a tremendous opportunity for the development of tourism in our area. Due to the reduction in travelling time for crossing the bridge and the elimination of the uncertainty of the ferry system, there will be a resultant increase in the amount of time which the tourist will spend in our area as well as in the number of visits which can be made to the region. In addition, the construction of the bridge itself will serve as a tourist attraction in its own right, and facilities can be developed around this attraction to promote tourism in the focus area which we believe will ultimately result in an increase in occupancy rate for our accomodation facilities as well as increased business for our restaurants and shopping facilities.

Given full consideration of all of these factors, on behalf of the Town Council of Sackville we recommend and give full support to a fixed link in the form of a bridge from Cape Tormentine to Prince Edward Island.

SEDCO
Sackville
Economic
Development
Corporation

March 6, 1990

Dr. David Barnes
Chairman
ENVIRONMENTAL ASSESSMENT REVIEW PANEL
P.O. Box 2221
Charlottetown, PEI
CIA 8B9

Dear Dr. Barnes:

I would like to express our appreciation for the opportunity to present our point of view to the Environmental Assessment Review Panel on the Fixed Link Project for the Northumberland Strait Crossing.

The Sackville Economic Development Corporation supports the construction of a fixed link from an economic perspective, however, the link should it be constructed, must not adversely affect the environment in any way whatsoever.

Economic development of any kind must be completed with the impacts of the development on our planet and ecosystems understood. Development for the sake of economics alone is not feasible.

SEDCO's support, based upon the economic benefits can be viewed from both the short and long term perspectives. In the short term, a great deal of employment will be created via the actual construction and by the support services necessary to accommodate and facilitate a construction undertaking of this magnitude. The effects in the short run, however, are of a project nature. Simply stated, when the link is completed there is no more employment. Realistically, it is doubtful that the short run economics of the project, with the exception of some local employment and services, will be of a significant economic impact.

The longer run impact, however, is of extreme importance and significance to this region. Easier accessibility to Prince Edward Island will mean that tourist traffic will increase. For Sackville, New Brunswick this will provide the opportunity for this portion of

Westmorland County and indeed our neighbouring Cumberland County to become an integral part of a motoring tourist's visit. No longer will tourists feel the necessity to rush to meet ferry schedules. Visitors indeed will become more relaxed which will facilitate the itinerate traveller the option to stop and stay. The long run economics provide the Sackville area with the chance to enhance its natural beauty and unique shopping to provide tourists with greater attractions.

It is our view that the tourist industry will not be the only market affected. With accessibility improved, the orderly transportation of goods and people will permit business to be conducted in similar ways with the rest of the economy. In simple terms, Charlottetown, P.E.I. is 30 minutes closer to Sackville. Indeed the concept of accessibility allows for many opportunities.

However, I must again emphasize that the opportunities associated with this project must not overshadow the environmental impact that the construction of a fixed link would have. While the determination of the environmental impact rests with the scientific community and is well beyond any assessment our organization can make, we trust that this project will not proceed until the environmental criteria are satisfied.

It is from these perspectives that the Sackville Economic Development Corporation supports the fixed link project. We hope it is a perspective which is sensitive to many competing priorities , but which will result in benefits to the people and communities of this area far into the future.

Sincerely

SACKVILLE ECONOMIC DEVELOPMENT CORP.

Catherine J. Draper
Executive Director

/cjd
cc: Dr. Marilyn Trenholme

Environmental Review Assessment Panel

Re: Northumberland Straight Fixed Crossing

Should the fixed link become a reality, regardless if it be a bridge or tunnel, we all know there will be an impact within this area. As a resident of the area I feel it is necessary the possible changes be anticipated so we will be prepared to deal effectively and successfully with those changes.

Following are some points of concern and questions I wish to put before this panel.

1. Will an attempt be made to balance the expected economic upswing in the area prior to, and during construction, with the inevitable economic downswing which will occur upon construction completion, to avoid a "boom and bust" situation?

2. For those residents wishing to start small businesses, will assistance be available, both financial and advisory?

3 What safeguards will be implemented against possible pollution from the construction site?
Will pop cans and bottles, lunch containers, wrappers, etc. be littering the beaches where we all swim?
How will sewage be handled, will it be dumped into the Straight?
Will the construction company be prepared to contain and clean up a fuel spill if one should occur?

4. Over the summer months an increase in traffic occurs on our secondary roads. With completion of the link, and no rush to catch a ferry, even more people will use the secondary roads. During construction, these roads may be used for trucking. Will funding be available to widen and upgrade these roads?

5. How will jobs and/or contracts be awarded? (ie.) supposing supplies will be transported to a building platform by fishing boats, will a contract for that type of work be put out to tender so all may have an equal chance of obtaining work?

6. What measures, if any, could be or would be used, in the event the bridge held the ice in the Straight? This would affect fishing, affect the growing season, not only in New Brunswick, but also in Prince Edward Island with its huge potato industry, by affecting the ground, air and water temperatures, shortening our summer season.
When the ice testing was done, was it taken into consideration there was very little ice in this area of the Straight at that time, and therefore was not a true example of normal ice conditions?

These are just a few points that should be considered now. Questions need to be answered so the people of this area know what to expect, can be kept informed of what will be happening and be prepared to react positively so our entire area may benefit.

Respectively submitted.

Sharon Allen

LITTLE CAPE
FISHERMEN'S
ASSOCIATION
1988

LCFA
1988

Members of
EASTERN
FISHERMEN'S
FEDERATION

Box 577, Cap Pele, N.B. E0A 1J0
• Tel.: (506) 577-4682 •

To the Committee Chairman and the Environmental Assessment Panel.

As a fisherman who makes his living from the waters of Northumberland Strait I would like to address the possibility of the construction of a bridge between P.E.I. and N.B.

Firstly I find it frightening the lack of conclusive environmental data regarding the affects that a bridge would have on the area. The Northumberland Strait has been described as a biological goldmine by federal fisheries biologists. There is no other area on the East coast that is as prolific for it's size. It is interesting to note that in our area the disaster facing the east coast fishery is not due to lack of stocks but to a market problem. This can be altered dramatically by changing the natural balance of this ecosystem.

As stated in the bridge concept supplement there are extensive scallop beds in the area of the proposed bridge, but this document only recognizes the loss of habitat in the immediate area of the piers. Scallops are filter feeders and any foreign materials floating in the water from bridge construction or siltation could cause permanent damage to the industry over a large area. This bridge would go directly on top of one of the major scallop beds.

It has been proven that there is not a good understanding of the tidal flows of the Northumberland Strait. One only need to look at the wharves and the silting that is occurring at the mouth of every one of them. Fishermen were informed that this would not happen but it has. The piers on a bridge may be small in comparison to the wharves but, there is no proof that they will not have the tendency to disrupt and change the current pattern and promote silting. There are three proposals for a bridge currently before the Public Works Commission. What is the spacing of the piers, and how will they be designed? These are questions that have yet to be answered but will have a major impact on how much of the strait will be blocked.

The scallop industry that this area supports, is the largest in Northumberland Strait. It is not clearly understood why this is the best area, and what the effects of a bridge will be on this resource. It is safe to assume that the tidal patterns play a large roll in this, and in other species also. Is a bridge worth jeopardizing an industry of this magnitude

The Bridge Concept Assessment does not recognize the significance of the beds in the corridor or that non-access to these beds would put added pressure on other areas. As stated in Porter Dillon, Northumberland Strait Fishery Observation Program, Fig. 3-6 this area supports Scallop fishermen from Cap Pele´ to Cape Tormentine on the New Brunswick side and Cape Egmont to Victoria on P.E.I. This document does not recognize the fact that there are also boats from further west than Cap Pele´ that also fish this area making a fleet of more than 100 boats.

Herring spawn on seaweed in May, June and July on hard rocky bottom. The existence of spawning beds in the immediate area of the proposed bridge has been recognized but this resource has not been utilized to it´s fullest potential because of market problems. Siltation would change the makeup of the bottom thus eliminating this resource. Because of a lack of understanding of herring migration it would be difficult to asses the damage done by silting to the herring stocks.

It has also been stated that a bridge would have little or no effect on the date of ice out. This seems hardly credible. On a year of low ice it is possible but what of the years when the ice travels here from the Gulf of St. Lawrence such as in 1984 and 1987. This is a much heavier icing situation and takes substantially longer to leave. This is also an extremely difficult situation to simulate. The long term effects of this type of situation are not well documented.

If simulations are to be believed on page D-8 of the BCAS the table shows that there is a 6.1% chance of a 200 sq. km ice jam. An ice jam of this magnitude could severely alter Herring spawning beds on both sides of the strait.

LITTLE CAPE
FISHERMEN'S
ASSOCIATION
1988

Members of
EASTERN
FISHERMEN'S
FEDERATION

Box 577, Cap Pele, N.B. E0A 1J0
• Tel.: (506) 577-4682 •

The Bridge Concept Assessment Supplement does recognize the possibility of a major environmental accident, but says that while having large consequences from an environmental perspective, they are of low frequency of occurrence. Major accidents involving hazardous materials of large proportions are happening on our highways at an alarming rate. With the sever winter driving conditions that are possible on this bridge due to white-outs from blowing snow and icing, the probability of an accident would be greatly increased. It should also be noted that all the environmentally dangerous chemicals needed on P.E.I. would be traveling over this bridge. One major accident in this area could spell disaster for the fishing industry as a whole.

The concept that lobster traps excluded from the construction corridor and from shipping lanes would not interfere with the fishing in other zones, is entirely false. The fishing area to the west of the corridor is already very crowded, the addition of more traps which are traditionally set in the construction area would only aggravate an already congested situation and lower the catch rates. During the course of the season the number of lobster traps in this area at any one time can greatly exceed the stated 80 traps per sq. km.

In regard to compensation the figure of $10 million seems hardly adequate realizing the richness of the area to the fisheries. P.W.C. does not seem to realize the amount of income derived from this exclusion zone by fishermen who traditionally fish there. The question of long term compensation will have to be more fully addressed. If in 20 years from now our children do not have a fishery, will there be compensation?

All affected fishermen organizations should be consulted as to who will be on the fisheries liaison committee, their mandate, and the duration of it. Will the liaison committee be financed by the money set aside for the compensation package? If not where will the money come from? The fisheries liaison committee will be an important tool for all concerned in the construction and aftereffects of a fixed link, its setup should be done with care and as soon as possible.

LITTLE CAPE FISHERMEN'S ASSOCIATION 1988

Members of EASTERN FISHERMEN'S FEDERATION

Box 577, Cap Pele, N.B. E0A 1J0
• Tel.: (506) 577-4682 •

Referring to the document Department of Fisheries and Oceans Comments on the Supplement to the Bridge Concept Assessment, it would appear, that the department with the most expertise in marine biology is very troubled by the bridge concept. It would seem that if long term effects are to be properly estimated then there must be long term monitoring before construction. There has been a lack of adequate long term monitoring in the past. The fishery in this area has been the mainstay of the economy for hundreds of years. Will it continue to be so for the next hundred years?

As we all know the fixed link to P.E.I. will have many benefits to various industries on both the mainland and the Island. It should be noted that a tunnel linking the two provinces is still an environmentally valid option. Public Works has given the impression that this project will not go ahead unless it is environmentally benign. There are many questions to be answered and I hope that they will be given the time that they deserve.

Thank-You

BOTSFORD PROFESSIONAL
FISHERMANS ASSOCIATION
R.R. #1
Port Elgin, N.B. BOA 2K0

1 (506) 538-7700

March 9, 1990

Dr. David Barnes - Chairman
Director - Atlantic Region of the Federal
Environmental Assessment Review Office
Holman Building, 2nd Floor
25 University Avenue
P.O. Box 2221
Charlottetown, P.E.I.
C1A 8B9

Mr. Chairman and Panel Members,

We are presenting this brief devised by David Robinson to express the concerns of the 75 commercial fisherman from Amos Point to Port Elgin due to the "Northumberland Strait Crossing Project" and to suggest our recommendations.

These are the fishermen who will be the most affected since they are the ones who will lose fishing grounds during construction. They are the ones most subject to the destruction of their grounds after construction due to environmental changes, and they are the ones whose activities will be overrun as land and sea corridors from all directions converge directly upon them.

Basically, we are concerned with:

1. A loss of income during the construction stage.
2. A loss of income after the construction stage but due to this construction.
3. A loss due to normal or abnormal happenings on the new crossing.
4. A loss to the value of both our homes and our business assets.

Our recommendations are:

1. Build a tunnel, not a bridge.
2. A five million dollar insurance policy to the benefit of fishermen should an environmental catastrophe pertaining to the 'crossing' destroy their livelihood which would consequently force them to abandon their homes and seek a life elsewhere. This policy should

stay in force as long as the crossing exists.
3. Since fishermans input is often requested but seldom implemented, funds should be provided by the Dept. of Public Works for a panel to lobby on our behalf.
4. Because compensation is traditionally better promised than delivered, we propose the additional 'up front' package described as follows, and for the reasons herein outlined.

We refer to figures from the "SUPPLEMENT TO THE BRIDGE CONCEPT ASSESSMENT" (Public Works Canada December 12, 1989 section I)

Since shellfish are not distributed evenly on all bottom but tend to mass on rock bottom, and since the proposed crossing and corridors will dominate this rock bottom, the "SUPPLEMENT" gear densities of 20 to 80 traps/km^2 with 250-1000 traps displaced is unrealistic. If we assume a realistic 50-75 traps per fisherman per year displaced for five or more years multiplied by 75 fishermen at a loss of $480 per trap (p. I-4 $480,000 / 1000) -more if 1986 or 1985 figures are used- , we arrive at a minimum of

$$50 \times 5 \times 75 \times 480 = 9,000,000$$

Although the "SUPPLEMENT" states that "these values can not be equated directly to dollars lost to the fishery, as gear could be placed outside the corridors and fishermen could continue to fish", the "additional 10-20 km travel.....per fishing day" (p. I-5) would only result in superimposing one man's traps atop another's with the resultant ill will or the futile travelling to an area devoid of lobsters and setting traps there. There is no alternate space available! The fishery here as elsewhere is already saturated as evidenced by the recent government effort at licence buyback.

Our plan, therefore, is to secure a type of insurance (call it group annuity or partial pension) prepaid and inflation indexed with the above calculated amount to cover the impending financial losses. The payments to be made annually to the fishermen on an equal basis, yearly. In return, the fishermen would forfeit all rights to compensation from the company for loss of catch or gear, yet still allow those who wished to continue fishing to do so at their own risk of loss.

This plan would partially compensate fishermen for the loss of income and associated social benefits in the short term, and the real loss to their Canada Pension Plan and eventual sale of their fishing outfit or home in the long term. It would allow the sick or elderly to retire from the fishery, eliminating a lot of the pressure. It would save the Company the embarrassment, frustration and expenses of daily claims from 75 fishermen. It would establish fixed costs for the Company on claims surrounding the worksite for the work duration. It would ensure cooperation instead of built up resentment or possible fringe retaliation against the Company. Surely this plan would be mutually beneficial. It is expected upon completion of construction, the individual plan members could either collapse their share for the cash value or opt to remain in, depending on their opinion of how the construction has affected their living.

Facts and figures used to validate our proposal:

We use the many facts and discrepancies in the "SUPPLEMENT TO THE BRIDGE CONCEPT ASSESSMENT" (Public Works Canada December 12, 1989) to substantiate our entitlement to benefits equal to Moncton Via Rail employees who received full wages, indexed for inflation until retirement, with this time also counting towards seniority and eventual pension. A similar and also local proposal in the "SUPPLEMENT" page K-11 only gives "ferry workers priority for bridge operation and maintenance" and "compensation to displaced (ferry) workers will relate directly to the governing collective bargaining agreements .... and to provisions arranged between Marine Atlantic and its workers". "SUPPLEMENT" page K-21 describes "out-migration of workers and their families to areas of employment opportunity". Fishermen may be forced into the position of having to dispose of both homes and fishing outfits in a 'ghost town' situation when resale options and values are zero. This same page also promotes "early retirement of Marine Atlantic employees from the workforce", showing preferential protection of some workers to the detriment of others.

Since the three different crossing proposals have not been made public, we can only estimate the adverse conditions that may be encountered by changed ice conditions or accidental discharge of toxic chemicals before or after construction. Witness Mississauga or Hagersville fiascos.

Additional observations and our comments on the "SUPPLEMENT" to substantiate our claim.

Page A-1 "Sea Surface" temperatures are used while lobsters are bottom feeders.
Page A-12 "Due to the construction of the Canso Causeway ... .mackerel are not present in the central Strait". This is an example of a similar prior project which caused us

irretrievable loss which we were never compensated for.
Page A-18 "...... Dredging due to an increase in turbidity" This could smother stocks and ruin bottom.
Page A-28 "For lobster there will be habitat lost due to the physical presence of the bridge". "The fishermen ..... will have access to the ferry exclusion zone upon elimination of service". We already have this access!
Page F-2&3 Under worst plausible spill scenarios. "These events are a common feature of the risk spectrum". "Borden Tormentine ferry service indicates these events occur at a frequency of about one spill per year." As this is indicated as "natural" by a government agency, then it can be expected to increase privately. A spill in the center of the strait could wipe out the floating lobster larvae and hence the lobsters for years.

Page I-2 "loss of access to lobster fishing grounds, for up to 200 traps" does not agree with Page I-4 "250 to 1000 lobster traps could be displaced". These figures cannot be believed or used.
Page I-4&5 We question the authenticity of the following: "it is unlikely that displacement of gear from construction corridors will result in other areas being overfished. There is sufficient area within traditional fishing zones of each fisherman to permit movement of gear without displacing other fishermen". Already fishing grounds are jealously guarded from Port to Port, as demonstrated by the 1986 confrontation when Seacow Pond fishermen tried to move their lobster operations to Summerside. "This is because the area that would be lost to fishing is small relative to that available to lobster fishermen". This area with associated corridors approaches 50% of the productive bottom. "This does not equal shifting of 25 percent of his gear to new waters, rather it represents displacement of gear over an area already fished by the particular individual". This statement implies that a fisherman could take his 250 traps and place them all together, anywhere. "if fishermen are permitted to set 15+ trap strings without surface floats". This suggestion would place a fishermans licence in jeopardy with the Department of Fisheries and Oceans. A end of string buoy is used by all legitimate fishermen. Imagine the chaos if multiple 15+ strings were run atop each other because without a buoy there was no evidence of strings already being there. "it could result in an additional .... ($15.00-$45.00) per fishing day". This assumes an hour spent sailing in a $50,000.00 boat with a captain and crew and using fuel is worth $50.00 per hour, total. Even at these ridiculously low figures, that amounts close to $2500.00 per season per boat.

As evidenced by the misinformation shown above, it is clear to us that the data furnished in the SUPPLEMENT TO THE BRIDGE

CONCEPT ASSESSMENT, DECEMBER 15, 1989 was not obtained from any professional fisherman. or if it was it was taken out of context.

Yours truly,

Reginald Pauley,
President, BPFA.

c.c./Hon. Brian Mulrony - Prime Minister
Hon. Frank McKenna - Premier
Hon. Bernard Valcourt - Min. of Fisheries and Oceans
Hon. Lucien Bouchard - Min. of Environment
Hon. Elmer McKay - Min. of Public Works
Hon. Denis Loisier-Min. of Fisheries and Aquaculture
Fernand Robichaud - MP
Dr. Marilyn Trenholme - MLA

PRESENTATION TO THE FIERO PANEL
ON THE NORTHUMBERLAND FIXED CROSSING PROJECT
BY WILLIAM CASEY, M. P.

Mr CHAIRMAN, MEMBERS OF THE PANEL, I APPEAR BEFORE YOU, NOT ONLY AS A MEMBER OF PARLIAMENT REPRESENTING HIS CONSTITUENTS OF CUMBERLAND COLCHESTER, BUT ALSO AS A HOUSE MEMBER WITH GREAT INTEREST IN THE FUTURE OF THE MARITIME PROVINCES.

THE PROPOSED NORTHUMBERLAND FIXED CROSSING PROJECT IS AN IDEA WHICH SAW THE LIGHT OVER A CENTURY AGO. THEN PROMOTED BY SENATOR HOWLAN, IT WAS PRESENTED AS AN ESSENTIAL ELEMENT IN NATION BUILDING IN SUPPORT OF THE CONSTITUTION ACT OF 1868. THIS ACT SPELLED OUT THE FEDERAL GOVERNMENT'S COMMITMENT TO PROVIDE CONTINUOUS TRANSPORTATION BETWEEN PRINCE EDWARD ISLAND AND THE MAINLAND. THE IMPROVEMENT OF COMMUNICATION BETWEEN OUR PROVINCES AND COMMUNITIES IS STILL A MAJOR PREOCCUPATION OF THE 1990's, AND ONE WHICH THIS GOVERNMENT IS COMMITTED TO ADDRESS.

AS YOU KNOW, Mr CHAIRMAN, UNSOLICITED FIXED LINK PROPOSALS FROM THE PRIVATE SECTOR CONFIRMED THAT THERE WAS A DEGREE OF INTEREST , A WINDOW OF OPPORTUNITY, WHICH THE GOVERNMENT OF CANADA COULD NOT AFFORD TO IGNORE.

AT A TIME WHEN CONSIDERABLE STRAIN IS PLACED ON THE PUBLIC PURSE, THIS PROJECT FITS WELL WITH THE POLICY DECISION OF THIS GOVERNMENT TO RELY ON THE PRIVATE SECTOR, FOR INITIATIVES AND LEADERSHIP OF THE ECONOMY. THIS IS NOT THE FIRST EXAMPLE OF PRIVATE SECTOR INVOLVEMENT IN A PROJECT OF SUCH SIGNIFICANCE... IN THE EARLY DAYS OF CONFEDERATION, THE INTERCOLONIAL AND TRANS-CANADA RAILWAY SYSTEMS WERE ALSO INITIATED BY PRIVATE SECTOR INTERESTS, WITH CONSIDERABLE ECONOMIC BENEFITS TO OUR COUNTRY.

IT MUST BE CLEAR THAT THE GOVERNMENT HAS NO INTENTION TO PROCEED WITH A PROJECT OF THIS SCOPE AND SIGNIFICANCE WITHOUT CONSULTING WITH ALL CONCERNED ON ITS RELEVANCE, ITS MERITS AND ITS IMPLICATIONS. THE PRESENT PROCESS REFLECTS THE GOVERNMENT'S DETERMINATION TO THAT EFFECT.

THESE PRIVATE SECTOR UNSOLICITED PROPOSALS LED THE GOVERNMENT TO CONSIDER A FRAMEWORK, A CONTEXT, A SERIES OF CONDITIONS DESIGNED TO ENSURE THE INTEGRITY OF THE PROJECT, AND TO PROTECT THE FINANCIAL, SOCIO ECONOMIC AND ENVIRONMENTAL INTERESTS OF THE

CITIZENS OF THIS COUNTRY. OBVIOUSLY, WE WERE NOT PREPARED TO PROVIDE ANY DEVELOPER WITH A BLANK CHEQUE, TO DELIVER AN UNDEFINED PRODUCT, AT SOME VAGUE DATE IN THE FUTURE, AND WITHOUT A SOUND UNDERSTANDING OF THE CONSEQUENCES... WE HAD TO ESTABLISH GROUND RULES, TO MAKE SURE THAT THE CITIZENS AND TAXPAYERS OF THIS COUNTRY WOULD END UP WITH A WELL DEFINED PROJECT, FOR A SPECIFIC COST, THAT WOULD MAXIMIZE THE SOCIO ECONOMIC BENEFITS AND REDUCE TO A MINIMUM ANY NEGATIVE IMPACT ON THE ENVIRONMENT. THEREFORE, WE ASKED PUBLIC WORKS CANADA, THE DEPARTMENT WITH THE EXPERTISE IN PLANNING, DESIGN AND CONSTRUCTION FOR THE FEDERAL GOVERNMENT, TO INITIATE A COMPETITIVE PROCESS AND INVITE THE PRIVATE SECTOR TO SUBMIT PROPOSAL WHICH WOULD MEET ALL THESE REQUIREMENTS.

NO RESPONSIBLE GOVERNMENT WOULD PROCEED WITH A PROJECT OF THIS SCOPE, WITHOUT FULL KNOWLEDGE OF ITS COST, AND THE TIME FRAME FOR ITS DELIVERY. WE KNOW THE COST OF THE PRESENT LINK... THE FERRY..., AND THAT GIVES US THE LEVEL OF THE SUBSIDY AVAILABLE. ESSENTIALLY, THE GOVERNMENT COULD ONLY ENTERTAIN PROPOSALS WHICH WOULD NOT INCREASE FEDERAL EXPENDITURES. THEREFORE, THE PROJECT HAD

TO BE ENTIRELY FINANCED BY THE PRIVATE SECTOR, ON THE BASIS OF A SUBSIDY NO GREATER THAN THE COST OF THE FERRY IT WAS MEANT TO REPLACE. FROM THEN ON, ANY OPTION, INCLUDING A TUNNEL COULD BE CONTEMPLATED. CERTAINLY, WE WERE AWARE THAT BRIDGE PROPOSALS MIGHT MEET THESE FINANCIAL REQUIREMENTS WITH LESS DIFFICULTY THAT MOST TUNNEL OPTION WOULD. BUT COMMON SENSE DICTATES THAT, IN THESE TIMES OF BUDGET CONSTRAINTS AND DEFICIT REDUCTION, THE GOVERNMENT MUST KEEP CONTROL OVER ITS EXPENDITURES.

AND THEN, ONCE WE HAD DETERMINED THAT THE LINK WAS FEASIBLE FROM A TECHNOLOGICAL AND ENGINEERING POINT OF VIEW, WE HAD TO ASK OURSELVES THE QUESTION: WHAT ARE THE CONSEQUENCES OF ACTUALLY BUILDING IT?

IT BECAME CLEAR THAT IN ADDITION TO COST CONTROL, THE FEDERAL GOVERNMENT HAD TO ASSUME THE ADDITIONAL RESPONSIBILITY OF ESTABLISHING GUARANTEES AND MAKE COMMITMENTS WHICH WOULD ALLEVIATE, COMPENSATE OR TOTALLY ELIMINATE THE NEGATIVE IMPACTS OF THE PROJECT. AND THAT IS PRECISELY WHAT WE DID AND I AM PREPARED, FOR THE RECORD, TO REITERATE THESE COMMITMENTS, Mr CHAIRMAN...

- EXISTING PROGRAMS AND ADDITIONAL COMPENSATION MEASURES WILL ALLOW US TO TAKE CARE OF THE MARINE ATLANTIC FERRY WORKERS, WHO WILL BE AFFECTED BY THE CLOSURE OF THE NORTHUMBERLAND FERRY.

- THE WOOD ISLANDS-CARIBOU FERRY WILL CONSTITUTE AN IMPORTANT ALTERNATE TRANSPORTATION SYSTEM AND THE GOVERNMENT'S DECISION IS TO KEEP IT RUNNING.

- WE HAVE ALSO MADE A STRONG COMMITMENT TO ESTABLISHING THE NECESSARY MECHANISMS, FOR THE COMPENSATION OF THE FISHERMEN WHO MAY BE ADVERSELY AFFECTED BY THE CONSTRUCTION AND OPERATION OF THE BRIDGE.

- THE FEDERAL GOVERNMENT HAS MADE THE FORMAL COMMITMENT TO NEGOTIATE AN AGREEMENT WITH PEI AND NEW BRUNSWICK, TO ASSIST THESE PROVINCES, IN ADAPTING THEIR TRANSPORTATION INFRASTRUCTURE TO THE ANTICIPATED INCREASE IN TRAFFIC.

- DEVELOPMENT OPPORTUNITIES WILL BE IDENTIFIED AND PURSUED, IN CONSULTATION WITH NEW BRUNSWICK AND PEI, TO OFFSET THE ADVERSE EFFECTS ON THE TOWNS OF BORDEN AND TORMENTINE, CAUSED BY THE TERMINATION OF THE FERRY SERVICE.

- IN ADDITION, THE GOVERNMENT HAS DIRECTED PWC TO INCORPORATE A SPECIFIC COMPREHENSIVE ENVIRONMENTAL MANAGEMENT PLAN INTO THE TERMS OF REFERENCE OF THE WINNING BID, FOR THE DEVELOPER TO EXECUTE UNDER THE ACCOUNTABILITY OF PWC ITSELF AND UNDER THE WATCHFUL EYES OF REGULATORY AGENCIES SUCH AS ENVIRONMENT CANADA AND FISHERIES AND OCEANS.

FROM MY PERSPECTIVE, AS A REPRESENTATIVE OF THE PEOPLE OF CUMBERLAND COLCHESTER, I SEE THIS PROJECT AS A TREMENDOUS OPPORTUNITY FOR INCREASED ACTIVITY AND EMPLOYMENT, NOT ONLY ON PRINCE EDWARD ISLAND, BUT ALSO IN MY RIDING AND ALL ALONG THE MAINLAND SIDE OF THE STRAIT, INCLUDING PICTOU COUNTY.

THE MAXIMIZATION OF ATLANTIC REGIONAL BENEFITS, DURING THE CONSTRUCTION AND OPERATION OF THE FIXED LINK IS AN INTEGRAL PART OF THE TERMS OF REFERENCE GIVEN TO THE INTERESTED DEVELOPERS. THIS MEANS THAT EVERY YEAR, AND THIS, DURING THE FIVE YEAR CONSTRUCTION PERIOD, BETWEEN 500 AND 1300 PEOPLE WILL BE FULLY EMPLOYED AT BUILDING THE BRIDGE. BUT AS SIGNIFICANT AS THESE NUMBERS CAN BE, THE PROJECT IS NOT JUST ABOUT CONSTRUCTION JOBS, IT IS ABOUT OPPORTUNITIES...

LET ME SUGGEST THAT WE DO NOT WANT TO BECOME DEPENDANT ON THE BRIDGE ITSELF, AS IT CAN ONLY DO VERY LITTLE FOR US, DIRECTLY... IN MY OWN MIND, THE FIXED LINK WILL LEAD US TO DISCOVER NEW FUTURE PROSPECT, IT WILL OPEN DOORS, IT WILL GIVE US CHOICES TO MAKE, IT WILL INCREASE OUR CONTROL OVER OUR DESTINY...

THE ONUS WILL BE UPON US, HERE, AS IT WILL BE ON THE ISLANDERS, TO MAKE THESE EXCITING CHOICES AND TO TAKE ADVANTAGE OF THE NEW OPPORTUNITIES WHICH THE PROJECT WILL GENERATE. IF WE ARE WILLING TO CAPITALIZE ON THEM, I CAN SEE TREMENDOUS LONG RANGE ECONOMIC BENEFITS, HERE AND IN PEI. FOR INSTANCE, I SEE GREAT PROSPECT IN

DEVELOPING THE CORRIDOR FROM CARIBOU TO TORMENTINE ON THIS SIDE OF THE STRAIT AS WELL AS THE BORDEN WOOD ISLANDS CIRCUIT, CREATING A "LOOP", FOR TOURISTS TO ENJOY AND FOR US TO BENEFIT FROM. THERE ARE A NUMBER OF SIMILAR OPPORTUNITIES TO SEIZE AND IN THIS AREA, WE ARE ONLY LIMITED BY OUR IMAGINATION AND OUR DEGREE OF INITIATIVE.

IN CONCLUSION, Mr CHAIRMAN, THE FIXED CROSSING IS A PROPOSAL WHOSE TIME HAS COME... ESSENTIALLY IT MEANS FLEXIBLE TRANSPORTATION BETWEEN PEI AND THE MAINLAND, AN OPPORTUNITY FOR ECONOMIC AND TOURISM DEVELOPMENT, IMPROVED ACCESS TO MARKETS TO AND FROM PEI, AND ULTIMATELY IT ALSO MEANS JOBS FOR OUR FELLOW CITIZENS. THE TIME IS RIGHT... WITH FREE TRADE, INCREASED COMPETITION, MORE OPEN MARKETS AND THE NECESSITY TO PROVIDE IMPROVED SERVICES IN RECREATION AND TOURISM, I SUGGEST THAT THE FIXED LINK IS NO LONGER A NICE THING TO DO, IT HAS BECOME A NECESSITY. IT IS ALSO EVIDENT THAT THIS PROJECT HAS BEEN INITIATED IN THE MOST FAVOURABLE CONTEXT, AT A TIME WHEN MORE THAN EVER, THE LEVEL OF POPULAR AWARENESS OVER THE ENVIRONMENT WILL GUARANTEE THAT IT CAN PROCEED WITH A MOST ELABORATE APPROACH DESIGNED TO PRESERVE OUR NATURAL AND SOCIO ECONOMIC ENVIRONMENT.

TO GET US TO THE STAGE WE HAVE NOW REACHED, SO MANY MONTHS HAVE PASSED, SO MUCH ENERGY HAS BEEN EXPENDED, SO MANY RESOURCES AND SO MUCH BRAIN POWER HAS BEEN MOBILIZED, SO MANY DOLLARS HAVE BEEN

SPENT.... THAT AT THE END OF THE DAY, WHEN YOU, MEMBERS OF THE PANEL DELIVER YOUR VERDICT, SHOULD YOUR RECOMMENDATION BE NOTABLY DIFFERENT FROM WHAT WE ARE NOW CONTEMPLATING, WE WOULD FIND OURSELVES BACK TO SQUARE ONE, ESSENTIALLY HAVING TO CONSIDER A DIFFERENT SCENARIO... AND IT IS MY PERSONAL CONVICTION THAT SUCH A THOROUGH PROCESS COULD NOT AND THEREFORE WOULD NOT BE INITIATED AGAIN BEFORE MANY YEARS. I WOULD LIKE TO LEAVE YOU WITH ONE THOUGHT, WHICH IN MY OPINION APPLIES TO MOST OF OUR HUMAN ENDEAVOURS... IT IS THAT, AS THE ENGLISH AUTHOR SAMUEL JOHNSON ONCE SAID, " NOTHING WILL EVER BE ATTEMPTED, IF ALL POSSIBLE OBJECTIONS MUST BE FIRST OVERCOME ".

TELEPHONE (902) 667 2562
FAX (902) 667 3356

AADC AMHERST AREA DEVELOPMENT COMMISSION
CONFEDERATION MEMORIAL BUILDING • P O BOX 223 • AMHERST NOVA SCOTIA • CANADA • B4H 3Z2

March 14, 1990

TO: THE ENVIRONMENTAL ASSESSMENT PANEL
REVIEWING THE NORTHUMBERLAND STRAIT CROSSING PROJECT

FIXED LINK PRESENTATION

INTRODUCTION

Ladies and gentlemen, panel members, good evening.

I am addressing you this evening on behalf of the Amherst Area Development Commission.

I would like to tell you about Amherst, Nova Scotia and why we favour development of the fixed link crossing to Prince Edward Island.

BACKGROUND

Amherst is centrally located in the Maritimes on the Isthmus of Chignecto which connects Nova Scotia to New Brunswick. Once part of the French Acadian region of Tantramar, Amherst has been settled since 1750 and has been a major manufacturing and industrial center in the province since the 1800's when it boasted textile and shoe manufacturers, foundries producing engines and railcars, and factories turning out everything in products from pianos to caskets.

..... *First in Nova Scotia* ..... *Center of the Maritimes*

The Town has always been a junction for highway and rail transportation routes and is located enroute to the ferry. (Also located approximately 200 km from major year round sea ports in Saint John and Halifax.)

Today Amherst is a full service community with accommodations, restaurants, shopping areas, an industrial park, police and RCMP detachment, a hospital, parks, museums, library and an 18 hole golf course. We are close to a major university and cultural center and only 30 minutes from an airport.

Our present diverse industrial base includes:

- aircraft parts manufacturing
- steel fabricators
- asphalt companies
- ready mix concrete
- house factory and mobile home parks
- trucking
- metal castings
- plastics manufacturing
- aluminium production for aircraft and domestic use.

Amherst has a population of over 12,000 in the Town and adjacent subdivisions and being situated only 65 Km. (Moncton 115 Km.) from the proposed mainland terminal of Bayfield, New Brunswick. Amherst is one of the largest communities within such a close proximity to this project.

Amherst is not only a manufacturing center but also a business and service center for Cumberland County and neighbouring New Brunswick counties. Obviously, we also draw our economic strength from these surrounding areas.

SITUATION

We feel the GREATEST BENEFIT of this FIXED LINK PROJECT will be to provide a five year economic boost to our area, creating jobs and enthusiasm, transforming workers into a highly skilled work force and providing seed capital for business creation, expansion and sound equity building which allows companies to grow and take risks.

We understand the crossing will take about four years plus or minus a year in the construction phase, at a cost of $1,000,000,000. (one thousand million) During this period construction activity will spread out and spin off from this project, increasing jobs and personal incomes.

We are proud of the scenic beauty of Cumberland County and our terrific lifestyle which together will be on display during and after construction. However, a major concern of ours is that these hearings will be deluged with environmental concerns at the expense of sustainable economic development.

In our opinion the fixed link crossing will kick start the evolving spirit of entreprenuership and risk taking which we see signs of in our Community.

ANTICIPATED BENEFITS

SHORT TERM BENEFITS

1. We have a leading manufacturer of ready mix concrete
2. We would expect to pick up some of the heavy equipment servicing industry.
3. We have huge deposits of gravel readily available which may be economically transported to the site.
4. Our trucking industry would be revitalized and service centers for them will develop.
5. Restaurants, motels and recreation facilities would improve and new ones develop.
6. Unemployment and government support programs would be reduced.
7. Businesses will be created and have a chance to establish equity. Entreprenuers will start taking chances again.

LONG TERM BENEFITS

1. Since Amherst has been a manufacturing town since the early 1800's, it has reliable, stable companies. There are skilled workers present. The development of the fixed link and the success of other businessmen will encourage our present

manufacturers to expand and modernize their equipment and facilities. We would anticipate new manufacturing industries to be created because of the shot in the arm from the fixed link crossing.

2. We envision that Amherst will become the service and accommodation center for one day trips to P.E.I., The Anne Murray Center, The Parrsboro Shore, The Northumberland beaches, the Wentworth Ski resort.
3. The construction period will attract workers and professionals to our Town and we would expect to retain a good portion of them because of our superb lifestyle.
4. Many residents of our area would then take trips to P.E.I. for golf, beaches, etc. With the ferrys, the time factor is so unpredictable these trips were avoided. Currently an average crossing takes approximately an hour and a half. It is estimated that driving across on a bridge would take approximately 15 minutes, making destinations accessible. This will also work the other way.
5. Our service and manufacturing business may secure new markets with the improved transportation being provided by the fixed link to P.E.I.

DISADVANTAGES

The disadvantages we see must be acknowledged, but we feel through careful planning, most demands could be met. These include:

1. Town officials will be under heavy pressure to meet servicing demands.
2. Roads will suffer from use by heavy equipment.
3. Traffic will increase sharply.
4. Water and sanitation services will be under pressure.

CONCLUSION

As taxpayers who support the Federal Government we feel our tax dollars will be more effectively used through the creation and operation of the fixed link as opposed to continued operation of the ferrys.

The Fixed link crossing development will kick start our industries to grow, adapt, and become more viable. It will provide hope and encouragement.

We would like to thank the panel for their time and the opportunity to provide our views. From our point of view when taking all concerns in balance we feel the fixed link should be built, the sooner the better.

Respectfully submitted,

Robert A. Nixon, C.A.
Executive Director

NORTHUMBERLAND STRAIT
CROSSING PROJECT

Remarks made by:

Mr. Ed Wesselius
Executive Director

ATLANTIC CANADA OWNER OPERATORS ASSOCIATION INC
R.R. # 1
Keswick Ridge, N.B. E0H 1N0
(506) 363-3518

We are an Association representing Owner-operators in Atlantic Canada.

March 14, 1990

Atlantic Canada Owner
Operators Association
R.R. #1, Keswick Ridge, N.B.
E0H 1N0 (506) 363-3518

March 14,1990

Members Of The Environmental Assessment Panel, Ladies and Gentlemen,

Thank you for allowing me to address the Environmental Assessment Panel hearings this evening on behalf of owner-operators, specifically members of the ATLANTIC CANADA OWNER OPERATORS ASSOCIATION. We welcome this opportunity to be able to present our views and concerns.

Our members have expressed concerns that the transportation system to Prince Edward Island at present results in an economic burden to owner operators. It is a contributing factor to the ever increasing burden to operate safely and within new laws and regulations. In addition, the environment is being burdened by the present system in terms of increased air pollution as a result of traffic delays during loading and unloading. This comes as a result of the additional costs and delays inherent in the present marine system.

For the above reasons, the ATLANTIC CANADA OWNER OPERATORS ASSOCIATION wishes to go on record as STRONGLY SUPPORTING the construction of the fixed link to Prince Edward Island.

Our association concurs with findings of studies done by the Atlantic Provinces Transportation Commission which estimate that additional costs of $30 - $50 above the ferry rate is incurred in terms of delays and opportunities-lost costs on each one-way ferry crossing as compared to utilizing a fixed crossing. Considering that over 150,000 trucks cross between Cape Tormentine and Borden each year, the total burden of these delays in loading, increased transit times, unloading and waiting is estimated by the Atlantic Provinces Trucking Association to exceed 10 million dollars per year. It is our association's contention that most of this cost is borne by owner-operators. Transportation cost savings are critically important to the survival and viability of owner-operators, the small businessmen of Atlantic Canada.

Since many owner-operators must move across the Northumberland Strait empty, this can mean an additional cost burden for owner-operators as delays can occur on both crossings. As an example, if an owner-operator is required to move an empty trailer to Prince Edward Island in order to pick up a load of potatoes, an additional cost of $100 can be expected.

The construction of a fixed link would have a very positive impact on the environment that truckers must operate in every day. At present owner-operators must operate under stressful working conditions. These stresses include traffic constantly "rushing-to-catch-the-ferries", delays due to tourist traffic, traffic queuing before and after loading, and waiting time. Owner-operators are usually on a time schedule in today's competitive environment. They are required to abide by "Hours of Service Regulations" and operate safely within the law. Hence, any delays in using the ferry service can be exceedingly critical and stressful to owner-operators as compared to, say, tourist traffic.

Our association is also of the opinion that construction of a fixed link will enhance the quality of air in the environment. At present, with over 850,000 vehicles utilizing the ferry service, air pollution is a factor that the Environmental Assessment Panel should consider. Queuing of traffic on both ends of the ferry service means that vehicles must either be idling or moving at a very slow pace. These delays could add an additional 15 - 30 minutes, on the average, to each crossing where vehicles are contributing to air pollution. When one considers the amount of emissions that results from these vehicles plus the amount of air pollution resulting from the operation of the ferries themselves, our Association feels it could only be beneficial from an environmental viewpoint to construct a fixed link.

The ATLANTIC CANADA OWNER OPERATORS ASSOCIATION supports a bridge being built rather than a tunnel. We believe that a tunnel would severely restrict the movement of dangerous goods. The options, such as moving dangerous goods only during certain hours would restrict the full capabilities of a tunnel. Also, moving dangerous goods via a ferry would nullify any cost savings which could be realized by elimination of the ferries. That would also make a fixed link less attractive financially. Some of these dangerous goods could include such ordinary commodities as paints, fertilizers, hay, cleaning solutions, etc. An incident in a tunnel involving tractor trailers loaded with any combination of the above dangerous goods would create a catastrophic accident with entrapment in a confined space by users of the tunnel. A very in-depth study would have to be undertaken to accurately assess the impact this scenario would create. We believe that a bridge would certainly eliminate most of the major concerns about the transportation of dangerous goods.

It is also the submission of our Association that a single toll be placed on the Borden side of the proposed bridge, and that the total toll would be collected only once. That is, vehicles entering Prince Edward Island would have to pay double the normal one-way toll and vehicles leaving Prince Edward Island would not have to pay any tolls. This would be a significant time saving for trucks and would be an additional safety factor for smoother traffic flow onto the bridge and its approaches. This could also be a cost saving for the operation of the bridge tolls.

There seems to be a misconception that there would be a cost reduction in freight charges if there were to be a fixed link built. It is our Association's contention that this will not be the case. The costs incurred due to the delays, etc. with the present ferry systems are borne solely by owner-operators. The building of a bridge (or tunnel) would merely eliminate an uncontrolled cost to the owner-operator. We are also assuming that there would not be an increase in the present toll structure.

We would also like to state that this submission should not be an unfavorable reflection on Marine Atlantic nor its employees, who have provided the trucking industry with excellent service over the past few years, utilizing the marine system capabilities available. We have adopted the position that construction of the fixed link should only proceed if there are no serious detrimental impacts on the environment. Should the fishing, agriculture or any other industry be seriously harmed by environmental changes, then ultimately the owner-operators would also loose.

The ATLANTIC CANADA OWNER OPERATORS ASSOCIATION would therefore like to recommend that a bridge be built and that the construction be started as soon as possible.

Our Association is available to submit our members' views and concerns at any time through our office and executive director. We represent owner-operators in Atlantic Canada. Thank you.

Sincerely,

Ed Wesselius.

Ed Wesselius
Executive Director

ATLANTIC CANADA OWNER OPERATORS ASSOCIATION INC
RR # 1
KESWICK RIDGE, NEW BRUNSWICK, E0H 1N0
(506) 363-3518

This is the text of a submission delivered on March 14, 1990
Moncton, N.B.

Atlantic Canada Own
Operators Associa
R.R. #1, Keswick Ridge, N.
E0H 1N0 (506) 363-3518

95 FOUNDRY ST., SUITE 203, MONCTON, NEW BRUNSWICK EIC 5H7
TEL. (506) 858-0700
FAX. (506) 859-0064

March 7, 1990

Ms. Betty-Lynn Burdett
Information Officer
Environmental Assessment Panel
Reviewing the Northumberland
Strait Crossing Project
Holman Building, 2nd Floor
25 University Avenue
Charlottetown, P.E.I.
C1A 8B9

Dear Ms. Burdett:

We are enclosing seven copies of the Atlantic Building Supply Dealers Association submission to the Environmental Assessment Panel for your reviewal.

This submission will be presented on March 14, 1990.

If you have any questions regarding the submission please contact our office (506) 858-0700 or fax (506) 859-0064.

Kindest regards.

Sincerely,

John J. Ward
Executive Director

JJW/cpt
encls.

New Brunswick Prince Edward Island Nova Scotia Newfoundland & Labrador

absda

ATLANTIC BUILDING SUPPLY DEALERS ASSOCIATION

Helping to Build Atlantic Canada · Pour aider à bâtir les provinces de l'Atlantique

ATLANTIC BUILDING SUPPLY DEALERS ASSOCIATION

absda
95 FOUNDRY ST., SUITE 441, MONCTON, NEW BRUNSWICK EIC 5H7
TEL. (506) 858-0700
FAX. (506) 859-0064

ATLANTIC BUILDING SUPPLY DEALERS ASSOCIATION

Submission To

The Environmental Assessment Panel Reviewing
The Northumberland Strait Crossing Project

Moncton, New Brunswick
March 14, 1990

New Brunswick *Prince Edward Island* *Nova Scotia* *Newfoundland & Labrador*

Atlantic Building Supply Dealers Association
Submission To
The Environmental Assessment Panel Reviewing
The Northumberland Strait Crossing Project

TABLE OF CONTENTS

PAGE

Introduction 1

Executive Summary 2

Section 1: Environmental Issues/Fishing Industry 4

Section 2: Transportation And The Building Industry 5

Section 3: Benefits To Island Manufacturers 7

Section 4: Benefits To The Prince Edward Island Building Industry 9

Section 5: The Tourism Industry 10

Section 6: Welfare of Ferry Workers 11

ABSDA Submission
The Northumberland Strait Crossing Project

INTRODUCTION

Atlantic Building Supply Dealers Association (ABSDA) is the trade association of the lumber and building material dealers in Atlantic Canada. The Atlantic Building Supply Dealers Association represents over 400 dealers ranging in size from small family-operated retailers to large multi-store chains, as well as over 200 associate members who represent a significant interest in supporting the building supply trade. Our members have 95 per cent of the volume in retail building supply sales in the region. Over 6,000 full-time workers are employed in our industry which has a multi-billion dollar impact on the Atlantic Region.

The overall purpose of the Association is to promote the general welfare of its members. Throughout its 35-year history, the Atlantic Building Supply Dealers Association has acted on its members' behalf on a wide range of industry issues. The Atlantic Building Supply Dealers Association has worked extremely hard to help promote the development of this vital industry throughout Atlantic Canada. The Association also provides many services to its members including education, research, industry information and legislation monitoring.

The opinions contained in this submission reflect the overall concerns expressed to the Atlantic Building Supply Dealers Association through a polling of members.

Our Association represents a vital segment of the region's economy. The health of the construction industry and, in particular, the home-construction industry, is vitally important to Atlantic Canada. We respectfully ask the Environmental Assessment Panel to give thoughtful consideration to the opinions expressed in this submission.

EXECUTIVE SUMMARY

The Atlantic Building Supply Dealers Association supports construction of the proposed fixed crossing between New Brunswick and Prince Edward Island. Our support is based on the following rationale:

1. A fixed crossing will provide faster, more reliable, cheaper transportation of goods to Prince Edward Island. This will have a positive impact on construction costs.

2. A fixed crossing will make Prince Edward Island more attractive to firms wishing to establish or expand manufacturing operations in the province. These new business opportunities will have a positive spin-off benefit to the building industry.

3. The fixed link will create immediate demand for new housing during the construction phase and will help other economic sectors enjoy healthy growth.

4. Development of the crossing should help the Summerside area of Prince Edward Island rebound from the closing of Canadian Forces Base Summerside.

5. A fixed crossing will enhance the tourism sector of the local economy. This will further stimulate the economy, benefitting our member dealers.

In addition, our Association strongly supports the mandate of the Environmental Assessment Panel to examine the possible impacts of the proposed crossing. We caution the Panel, however, to keep potential environmental problems in perspective and not to allow them to outweight the positive impact a fixed crossing will have on the economy of the region.

We also urge the Panel and Government to be mindful of the welfare of ferry workers. The impact of the fixed crossing on their lives must not be overlooked.

1.0 ENVIRONMENTAL ISSUES/FISHING INDUSTRY

1.1 The Atlantic Building Supply Dealers Association wishes to express its support of the Environmental Assessment Panel's mandate to examine in detail various possible impacts of the proposed fixed link.

1.2 In particular, our members support the notion of a detailed examination of the impact on marine animal and plant populations and their habitats. Certainly, protection of the fishing industries of Prince Edward Island and New Brunswick must be of the utmost concern.

1.3 Likewise, our Association supports the study of other possible environmental issues including impacts on terrestrial habitats, tide and ice dynamics, transportation of hazardous goods, vechicular traffic, and other possible socio-economic effects.

1.4 Our Association wishes to caution the Environmental Assessment Panel against allowing possible negitive environmental findings to outweigh the potential positive impact of the fixed link. The Atlantic Building Supply Dealers Association believes the fixed crossing to be vitally important to the commerce of the region. We wish to express the sincere hope that the Panel and Government will place all possible environmental problems into proper context and not allow speculative opinions and unsubstantiated fears lead to an abandonment of the project. We believe potential environmental problems associated with the fixed link can be addressed. Solutions to the economic problems of Atlantic Canada, like the fixed link, are harder to come by.

2.0 TRANSPORTATION AND THE BUILDING INDUSTRY

2.1 Transportation costs in Atlantic Canada have long been the subject of controversy. Because of Atlantic Canada's geographic location, landed costs for materials have always been disproportionately higher in this region. These added costs are passed on to consumers. To help offset these higher costs, Federal subsidies for the transportation of goods to and from the region -- including the costs associated with the opertion of ferries -- have amounted to billions of dollars over the decades. These subsidies do not cover all additional costs however.

2.2 Of particular concern to our Association is the impact of transportation costs for building supplies. While certain raw materials, particularly forests products, are produced in abundance in the region, most other manufactured goods are imported from outside Atlantic Canada. These high tranportation costs lead to overall higher costs for commercial, industrial and home construction. The problem is particuarly noticable for islands like Newfoundland and Prince Edward Island.

2.3 Completion of a fixed link to Prince Edward Island, with the resulting fast, economical transportation of goods, will most certainly have a positive longterm impact on overall construction costs on Prince Edward Island. This competitive advantage is of particular importance, given two factors: an increasingly competitive global economy makes every possible price advantage important, and the implimentation of the Goods and Services Tax, January 1, 1991, which is predicted to add $3,000 to the cost of building a new home (Canadian Home Builders Association figures).

2.4 Of additional importance is the potential time savings which will be afforded by a fixed crossing. Shipment of inventories to our member dealers on Prince Edward Island are frequently at the mercy of traffic and weather conditions which delay ferry crossings. In 1987, for example, Marine Atlantic crossings to Prince Edward Island were halted 10 times because of weather conditions. These delays can be critical for businesses awaiting the arrival of merchandise and costly to customers who rely on the availability of merchandise from our members.

3.0 BENEFITS TO ISLAND MANUFACTURERS

3.1 Just as wholesale and retail suppliers on Prince Edward Island would benefit from faster, more reliable transportation of goods from the mainland, so would manufacturers located on the Island.

3.2 The location of manufacturing plants is dependent upon many variables. Availability of raw materials and a skilled workforce are two key considerations. But equally important is access to markets. Naturally, manufacturers already located on Prince Edward Island will reap many benefits from the establishement of a fixed crossing to New Brunswick. Cheaper, faster and more reliable transportation costs will result.

3.3 The proposed fixed link will also make Prince Edward Island more attractive to firms wishing to establish or expand manufacturing operations in the province. With the uncertainties and expense of ferry transportation removed, Prince Edward Island will automatically become a more viable option for the establishment of manufacturing facilities.

3.4 Recent announcements by the frozen food divisions of both McCain Foods Limited and the Irving organization to expand their operations on Prince Edward Island lead us to believe other organizations would look favourably upon Prince Edward Island as a manufacturing location. Certainly, the proposed fixed crossing will make both new plants more economically viable, ensuring their long-term success.

3.5 Establishment of these and similar plants will benefit the province through the creation of jobs. In other jurisdictions, construction of fixed crossings and the resulting cheaper and more reliable transportation of goods and raw materials have opened up new business opportunities.

3.6 The spinoff activity generated by this job creation will benefit our Association's members through the expansion and construction of plants and manufacturing facilities and through the construction and renovation of homes by plant workers.

4.0 BENEFITS TO THE PRINCE EDWARD ISLAND BUILDING INDUSTRY

4.1 As stated in section 3.0, the Atlantic Building Supply Dealers Association believes development of the fixed link to Prince Edward Island could lead to further development and expansion in the home building and renovation industry. The economic activity generated by the construction will:

- Create immediate demand for housing for construction workers and their families in both Prince Edward Island and New Brunswick.
- Create new business development in various economic sectors following completion of the project.
- Create some demand for materials and supplies for construction purposes.

4.2 In addition, our Association believes development of the fixed link would have strong economic benefits for the Summerside area of Prince Edward Island. Economic activity in this region is vitally important because of the recent closure of Canadian Forces Base Summerside. Our Association supports any development which helps offset this serious loss.

5.0 THE TOURISM INDUSTRY

5.1 Tourism is important to Prince Edward Island for several reasons. It is an important economic contributor to an economy which is dependent on agriculture and fishing, two industries susceptible to the vagaries of nature.

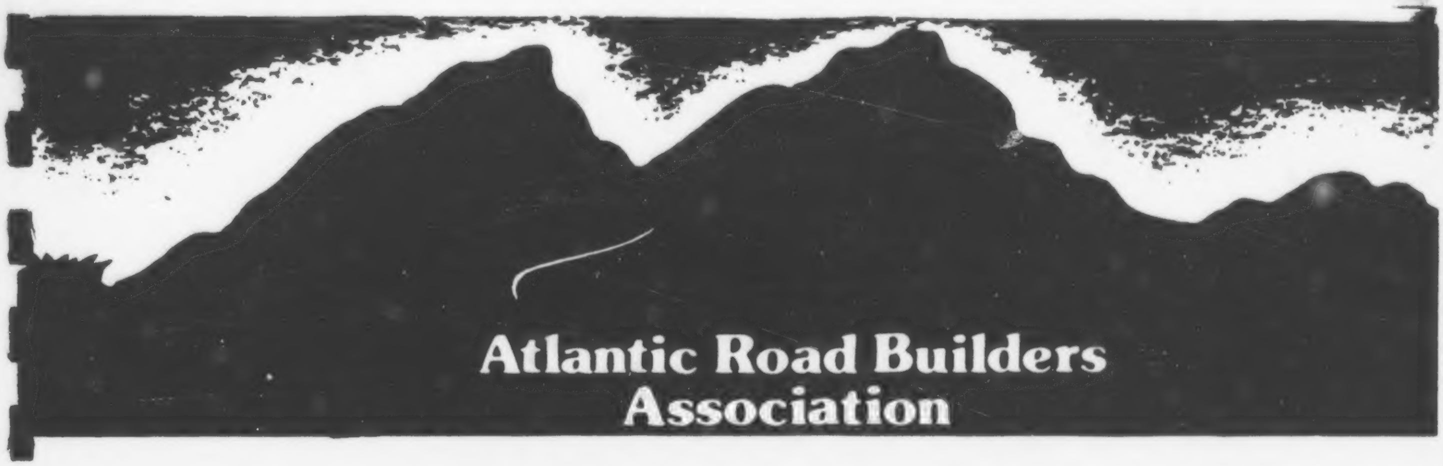
5.2 Any activity which can enhance tourism as a primary industry for Prince Edward Island must be fully explored. As was seen in the case of the Mackinac Bridge in Michigan, development of the fixed crossing joining the state's upper and lower peninsulas resulted in prosperity for the region, much of it from increased tourism.

5.3 The Atlantic Building Supply Dealers Association sees increased tourism opportunities -- on both sides of the strait -- as yet another reason for development of the fixed crossing to proceed. Stimulation of economic activity in both Prince Edward Island and New Brunswick would create more post-construction phase jobs and assist the continued growth of our member dealers thereby creating or establishing more job opportunities for residents of both Prince Edward Island and New Brunswick.

6.0 WELFARE OF FERRY WORKERS

6.1 While the Atlantic Building Supply Dealers Association firmly supports development of the fixed link, our members strongly urge government to be mindful of its impact on ferry workers and their families.

6.2 Our Association is concerned that the human side of this project must not be overlooked. Government has a moral obligation to assist these workers in relocation and retraining, following completion of the crossing. This factor should not be forgotten when government resources are allocated for the project.


Atlantic Road Builders
Association

A SUBMISSION

TO

THE FEDERAL ENVIRONMENTAL ASSESSMENT

REVIEW PANEL REVIEWING THE

NORTHUMBERLAND STRAIT CROSSING PROJECT

DR. DAVID H. BARNES, CHAIRMAN

PRESENTED BY

THE ATLANTIC PROVINCES ROAD BUILDERS ASSOCIATION

MARCH 14, 1990

MONCTON, N.B.

The Atlantic Provinces Road Builders Association is an association comprised of the three Atlantic Provinces Road Builders Associations namely Nova Scotia, New Brunswick and Prince Edward Island.

We represent a large portion of the Road Building Contractors and Suppliers in the three Maritime Provinces.

We see this Fixed Link as a project that will have extremely positive benefits to the Maritimes as a whole.

We will address the situation, as we perceive the project as members representing one of the largest industries in the Maritime Provinces.

The size of the project, to put it in perspective, is approximately one billion dollars or the equivalent of two Toronto Sky Domes.

This project would attract world wide attention from all areas of the world where a similar situation exists.

With a project of this magnitude, the benefits to the three Provinces involved would be enormous both during the construction period and after.

.../2

Let me outline the benefits we see occurring during construction:

1. Construction activity occurring on both sides of the strait would involve many workers from all three provinces, including skilled tradespeople, labourers, executive, clerical, student jobs, etc.

   This project will take at least five years to construct. Some of these people would acquire skills on-the-job that could stand them well for any future work that they may wish to pursue.

2. We see fabricating facilities being built on both sides of the strait which could have a long term existence even after the link is built.

3. The rental of contractors' trucks and heavy equipment from all provinces will be enormous.

4. The supply of aggregates, steel, rock, fabricated items, paving, lighting, etc. will be enormous.

   We can see all quarries in the area being used to capacity to provide the vast quantities of sand and aggregates required to produce a project of this size.

5. The areas to benefit after the link is built are many.

.../3

We can see the cheaper and quicker access to markets helping Prince Edward Island producers and manufacturers and fish and agricultural related products.

Cheaper transportation to the Island from N.B. and N.S. can result in cheaper production in many segments of the economy including agriculture, fishing, construction and manufacturing.

Ease of access between P.E.I., N.B. and N.S. can result in small construction jobs being available on a daily or short term basis between contractors of the three Maritime Provinces.

We see the increase in tourism as a direct benefit to all three Provinces. These benefits range from accommodations, food and beverage supplies, theme parks and other attractions. The spin-off to other segments of the economy are vast. We can name a few, such as gas station operators, crafts people, seasonal workers and students.

The increase in activity will no doubt require the upgrading of the highway and road systems in all areas affected. This we see as a positive situation where new, improved and safer roads will help all aspects of the travelling public.

The resulting spin-off in transportation expenditures will have far reaching effects throughout the entire region.

.../4

We have seen the studies produced by Public Works Canada with respect to the environment. Other than some temporary disruption where the bridge piers will be located, we do not believe, according to the information, that any long term environmental damage will occur.

It is possible that the areas around the bridge piers may provide a habitat for lobster and other marine life in the protective rock that will be located there. This situation has occurred in other areas where similar facilities have been constructed.

In conclusion, we believe the Fixed Link would be a major factor in improving the economic future of all Maritime Provinces and we endorse the immediate construction of the bridge concept.

Respectfully submitted,

ATLANTIC PROVINCES ROAD BUILDERS ASSOCIATION

REMARKS FOR
HON. ALDÉA LANDRY
MINISTER OF INTERGOVERNMENTAL AFFAIRS
PROVINCE OF NEW BRUNSWICK

ENVIRONMENTAL ASSESSMENT REVIEW PANEL
NORTHUMBERLAND STRAIT CROSSING PROJECT

École Polyvalente Mathieu-Martin
Dieppe, N.B.

March 14, 1990

Mr. Thériault, Mr. Barnes, members of the panel, representatives of federal and provincial environment departments, ladies and gentlemen, good evening. It is indeed a great pleasure for Hon. Al Lacey, Minister of Commerce and Technology and I to be here tonight to present the views of our government on this most important project. We welcome this opportunity to provide input on behalf of the province of New Brunswick in regard to your challenging and very important task.

Given the extensive volume of information you must review and the wide variety of public issues to be addressed, that task is already a major undertaking.

I understand that the focus of the initial series of meetings were primarily geared towards an assessment of technical information. This final phase of consultation will indeed provide an opportunity for the public at large to air their views.

The Province of New Brunswick has been actively involved in this project since day one. From the time of initial meetings with Public Works Canada, when the concept was still in its formative stages, until the recent establishment of this review panel, New Brunswick provincial agencies have been fully involved in reviewing the fixed crossing proposal.

This participation has included representation on the project Steering Committee ... as well as membership on various technical committees, examining aspects such as environmental and industrial impacts. Throughout this 18 months period, the review in which we participated was detailed and rigorous. Our officials have monitored Public Works Canada's public participation process very closely both in New Brunswick and Prince Edward Island. They have analysed the extensive media coverage of the issue as well, which provided another valuable guide for identifying public concerns.

As the process moved forward, our provincial agencies directed a substantial effort toward reviewing and commenting on the numerous studies and reports generated as a result of the issue identification process.

At the culmination of this effort late last year, the Government of New Brunswick was confident that all possible contentions issues had been clearly identified.

We believed at the time, and to this day, still believe, that the appropriate steps have been taken to ensure the project can proceed with a minimal amount of environmental impact.

The various mitigation measures were appropriate responses to the environmental concerns raised by the public and our own technical specialists.

Members of the panel, as you enter this final phase of the public hearing process, let it be known that our basic position has not changed. That is, that a successful and environmentally acceptable solution can be found for each identified environmental concern.

In your examination of the documentation, please understand our stance of the project and note the nature of some of our concerns. My colleague, the Hon. Lacey will address shortly the associated industrial and economic benefits to a mega-project of this nature. But one thing is certain, we must minimize the "boom and bust" effects of such a project on a primarily rural area. Otherwise, it could be devastating to the people of the area and to their peaceful way of life.

Notwithstanding the province's general enthusiasm and support of the project, I must clearly state that the fishery along the Northumberland Strait is not for sale.

Approximately 2500 Southeast New Brunswick fishermen depend on the Northumberland Strait fishery for their livelihood. In 1988, total fish landings for the area amounted to approximately $25 Million of which 85% were accounted for the lobster and scallop fishery. Furthermore, 4700 persons are seasonally employed in 52 processing plants. Shellfish aquaculture has a proven potential in the area.

The province of New Brunswick signals its supports for the project on the provisal that special measures for the protection of the valuable Northumberland Strait Fishery be developed. The Province insists that a fishery compensation plan be established between the federal government and the developer at the time of contract award, in the event of any unforseen circumstances either during or after construction,

We have pressured Public Works Canada for some time now and we are told that the Provinces and fishermen's groups will be involved in this consultation.

In addition to the fishery, we must ensure continued protection to Cape Jourimain National Wildlife area with its sensitive and attractive marshes. And finally, that the long term operation of the crossing be carried out in a conscientious and environmentally sensitive manner with appropriate safeguards for the travelling public and the Northumberland Strait.

New Brunswick has stated its support on a number of occasions for the project but certainly not at all costs. It is clear that the Province, has much to gain economically from this major construction project, however, that gain must be balanced against costs to our environment, for our environment is non-renewable.

Members of the panel, I am certain your contribution to public discussion of the various issues will ensure that the needs and concerns of all parties potentially affected by the Fixed Link will be properly addressed. Finally, I would like to reiterate that New Brunswick is convinced that the project can move forward, for the benefit of the people of New Brunswick and at the same time be environmentally safe.

I would now ask my colleague Hon. Al Lacey to say a few words.

Thank you.

TEL 857-4038
FAX 857-8861

MONCTON
NORTHEAST CONSTRUCTION ASSOCIATION
INCORPORATED

297 COLLISHAW STREET P O BOX 2038 STN A MONCTON, N B E1C 8H7

A SUBMISSION

TO

THE FEDERAL ENVIRONMENTAL ASSESSMENT

REVIEW PANEL REVIEWING

THE NORTHUMBERLAND STRAIT CROSSING PROJECT

DR. DAVID H. BARNES, CHAIRMAN

PRESENTED BY

MONCTON NORTHEAST CONSTRUCTION ASSOCIATION

MARCH 14, 1990

MONCTON, N. B.

AFFILIATED WITH THE CONSTRUCTION ASSOCIATION OF NEW BRUNSWICK
AFFILIATED WITH THE CANADIAN CONSTRUCTION ASSOCIATION

On behalf of the Moncton Northeast Construction Association, I wish to thank you for this opportunity to address the **"Environmental Assessment Panel"** for the Northumberland Strait Crossing Project.

The Moncton Northeast Construction Association represents contractors and suppliers in the eastern half of the province of New Brunswick. The Moncton Northeast Construction Association also has the accreditation rights for carpenters and labourers in the eastern side of New Brunswick.

It is obvious our members would have an invested interest in the project proceeding. We are very supportive of this project and to the economical boom it would create for our industry.

This project is what we would call a "mega project" and is not the first "mega project" for New Brunswick. We have experience in other projects and their aftereffects. Most of our members have been in New Brunswick for many years and all hope to be here long after this project is complete.

.../2

We do have some concerns:

1. **Labour Stability:**

This project will require large numbers of carpenters, labourers, operators, welders, etc. for a relatively short time (5 years). There are existing wage scales and labour agreements in effect over the past few years. We are concerned that these are maintained and expanded upon. We do not want to see a short-term labour agreement for this job that is not in line with the wages throughout the region.

We also require training and apprenticeship courses to make sure our Maritime people get their fair share of the work.

2. **Environmental Stability:**

We do not pretend to be experts on the ice flow and/or the fisheries. Our business is the construction business. We do know what can be done and how it can be done to provide environmental security. There are existing environmental regulations throughout New Brunswick, Nova Scotia and Prince Edward Island. It will take coordination to make sure all these concerns are met. There will be some new concerns.

.../3

However, similar projects have been completed and we can learn from them. Whatever develops from these hearings as concerns or regulations, should be made public before the tender process and not as an "afterthought" halfway through the project.

It is time to proceed. The Moncton Northeast Construction Association is in support of the fixed link crossing project. As residents who will be here long after this project is built, we are assured that this link can be built to maintain our natural surroundings and, in fact, enhance this area.

It is our feeling that this fixed link is only a small part of the work required to improve our infrastructure (i.e. roads, bridges, etc.). It will also improve our economy so we can afford to maintain our environment.

Respectfully submitted,

[illegible] B Chambers

W. B. Chambers, P. Eng.

MONCTON NORTHEAST CONSTRUCTION ASSOCIATION

The Maritime Fishermen's Union
L'Union des Pêcheurs des Maritimes

P.O. Box 1418 Shediac, N.B
C.P. 1418 Shediac, N.-B
E0A 3G0

Tel. (506) 532-2485

March 15, 1990

MFU PRESENTATION BEFORE THE FEDERAL
ENVIRONMENTAL ASSESSMENT PANEL REVIEWING THE
NORTHUMBERLAND STRAIT CROSSING PROJECT

Mr. Chairman,

We thank you for this opportunity to make a further presentation to your panel re: the Northumberland Strait Crossing Project.

As you probably have surmised, fishermen remain skeptical about this mega-project. Since it was first proposed, our members have continually referred back to the causeway in the Strait of Canso and its negative impact on the fishery that coutinues to this day. A bridge, of course, is considerably different than a causeway but the magnitude of the project in the sensitive ecology of the Strait with winter ice conditions gives cause for concern.

The Maritime Fishermen's Union is strongly represented in the fisheries Northwest and Southeast of the proposed project site. Our fishermen have a considerable stake in this project and are obviously dependent on a healthy Northumberland Strait. We also have membership on Prince Edward Island who are based further from the project site

.../2

and who in some instances would benefit from increased market opportunities for their catch as a result of a fixed link. As we have stated on previous occasions, we do not oppose the concept of a fixed link crossing if it can be demonstrated to be environmentaly sound.

However, we are not completely reassured by the extensive literature from Public Works and their consultants re: the Bridge Concept. When the project was first announced, we suggested the major stakeholders like ourselves be provided adequate financial resources to engage our own professionals to assess impacts; it would have been invaluable in helping us weigh the considerable technical information. Nevertheless, we realize your Panel is attempting to do a thorough assessment and we anxiously await your conclusions. In the meantime, we have attempted to digest the supplementary information from Public Works with little consolation.

We have been in the business long enough to realize that Ocean Activity never quite corresponds to what is on paper or in mathematical models. It is undeniable, for example, that there will be considerable disruptions to the fishery during the construction phase which will lead to gear damage, risks of collision, habitat disturbance, harbour congestion, increased pressure on remaining fishery grounds in the area, and some damage to fish stocks. In our judgement, there is not sufficent focus on this construction phase although five years of intense activity is a lengthy period for any affected fisherman.

In the event that the Bridge Concept passes your assessment and is pursued, we would be looking for a very comprehensive insurance and compensation package for this construction phase and we are concerned with the vagueness of references to the Fisheries Liason Committee: what precise powers will it have to compel compensation and to hold the responsible

.../3

parties accountable; will it be that individual fishermen are tied up in lengthy court cases over non-attributable damage? And with respect to environmental damage, what base line studies does the Liason Committee use; if lobster recruitment is down, how will the Committee attribute cause when the actual impact might be fifty miles down shore etc.

Mr. Chairman, as we pointed out in previous representations, the Northumberland Strait supports a considerable fishery and many coastal communities on the Island, New Brunswick and Nova Scotia. Any large disruption in the marine ecology not only impacts on the fishermen, it hits the communities dependent on fishermen's production. The problem remains that there are virtually no similar precedents to measure impact of a project of this scale in waters that ice up. Public Works experts predict there will be negligible ice-out delays as a result of a bridge. However, this remains a central concern of fishermen and even in the end if you are satisfied that the ice factor is negligible, we propose that no project be accepted that cannot clearly demonstrate a contingency plan in the event the experts are wrong - in other words, we would like to see a fall back position in the event of ice jams. Technically, we do not know exactly what this would require, especially if it turned out to be a recurring feature resulting from the new structure.

Two of our members recently had the opportunity to visit aquaculture sites in Southeast Asia. They reported that there is considerable competition among firms to find out each others wave motion secrets which apparently have considerable effect on the molting and thereby growth of the shrimp. This reminded us of the importance of water motion

.../4

and the potential effects sixty piers across Northumberland Strait might have. CAFSAC noted that the piers would "change the resonance time for propagation of waves within the Strait"; although they do not say it, such a change could have a positive effect in one area and a negative in another. And they certainly note, whether it is sediment, water mixing, ice formation, or tidal dynamics, etc that "all theorectical approaches to prediction may be based on inadequate assumptions".

We are talking here of a very productive marine environment. The supplementary Public Works information provides us with landings for the area 4Th, that is the statistical area referred to as Northumberland Strait. Lobster landings in this discrete area were 4,481 tons in 1988 but if you extend the area to boundaries many of us think as part of the Strait (e.g. the hake line) you double the lobster catch making it the most productive single lobster area in all of Atlantic Canada. Presumably, ecological destortions will not adhere to statistical boundaries, especially when you are talking of tidal dynamics, ice formation etc. Given the CAFSAC uncertainties about this mega-project and given the potential fisheries impact, you can appreciate why fishermen remain skeptical. This skepticism goes beyond the concerns about the bridge structure itself to the operational phase. There seems little question that a bridge increases the likelihood of a major marine disaster from a large petrochemical spill, insecticide, or other toxic spills. Our industry has already tasted the fruits of pollution; even when it has been localized and contained we have faced new consumer resistances. We are not satisfied with the attention given to the operational phase. The design of the bridge itself

.../5

would have to incorporate a wide range of accident avoidance measures. And, the long term operational plan would have to demonstrate accident proof procedures.

Further, the operators would have to be bonded or insured against marine disaster and a mechanism would have to be established whereby fishermen and the communities are compensated regardless of the outcomes of the inevitable litigations. These of course, are all easy to say on paper but if the structure itself passes your environmental assessment, we would expect extensive negotiations and public contractual committments prior to any construction commencing.

Mr. Chairman, although it was acknowledged at an earlier period that a tunnel would pose less marine environment risk, we still do not have any substantial information about the tunnel option or why the one tunnel proposal was rejected. We feel that your Panel should be fully appraised of the feasibility of the tunnel options before making your final deliberations on the Bridge Concept. We believe you would be able to make a freer assessment of the environmental impact of the Bridge if you knew there was a feasible alternative fixed link.

Further, in our judgment the idea of a fixed crossing has never really been a strong popular demand; the Islanders themselves have been quite ambivalent. It has seemed to us that the project was initiated as a business venture and not as a response to public demand. This suggests to us that business considerations will tend to mute the environmental considerations especially where the professional studies generally play down the risks. The lack of a strong popular

.../6

demand also makes it harder to justify the inevitable environmental risks and probably also explains the lack of sustained public focus on the project and its implications.

In conclusion, we have not come to these hearings with any new overwhelming evidence to suggest that a bridge will be a disaster to the fishery but all of us know that this project has no real parallels and that we are moving into realms of uncertainty because of our limited knowledge of the ocean eco-system itself and of the interplay of forces between sixty piers and a water system that ices over part of the year. As one of our members told you in Pictou, we are not enthusiastic about becoming guinea pigs again, especially in an experiment where there is no overwhelming public good to be served by the project.

Under such conditions, we suggest a moratorium on the Bridge Concept at least until such time as bodies like CAFSAC are satisfied that the theoretical approaches to prediction are based on adequate assumptions.

SUBMITTED BY: Michael Belliveau
Secretay Treasurer

ROAD BUILDERS' ASSOCIATION OF NEW BRUNSWICK INC.
P.O. BOX 1061, FREDERICTON, N.B.
E3B 5C2

A SUBMISSION
TO
THE FEDERAL ENVIRONMENTAL ASSESSMENT REVIEW PANEL REVIEWING THE NORTHUMBERLAND STRAIT CROSSING PROJECT

DR. DAVID H. BARNES, CHAIRMAN

PRESENTED BY

ROAD BUILDERS' ASSOCIATION OF NEW BRUNSWICK

MARCH 15, 1990

SHEDIAC, N. B.

On behalf of the Road Builders' Association of New Brunswick, I wish to thank you for this opportunity to address the "Environmental Assessment Panel" for the Northumberland Strait Crossing Project.

The Road Builders' Association represents the road building and bridge building contractors of New Brunswick.

It is obvious our members would have an invested interest in this project proceeding. Many of our members have been actively engaged in the previous tender procedure.

This project would employ numerous local small contractors and suppliers, thus adding to the economy of the region. I can go on and on about the benefits to our local economy with this "mega project".

The Road Builders' members are all New Brunswick companies with New Brunswick interests. We all have families living in this New Brunswick environment and we choose to stay here long after this project is built. Therefore, we also have an invested interest in the environment and any environmental changes that may occur.

.../2

Our concerns are:

1. The social-economic changes to the communities immediately at the construction site due to an influx of construction camps and construction crews over a relatively short five-year period. There will be a need for proper infrastructure for this sudden population increase (i.e. sewers, roads, houses).

2. The demand on our work force. This job will be labour intensive and require skilled carpenters, labourers, welders, steel setters and operators. There is a need for some training and work experience to employ these local people.

3. Our main concern is that this crossing be built using as much of the "Maritime" work force as possible and using "Maritime" materials to maximize the economic benefits to this region.

4. As New Brunswick residents and contractors, we have concerns about environment damage caused both during construction and long after. However, we do not pretend to be experts in this field (i.e. ice flows, fisheries, tourism).

As with our current work, there are environmental regulations in place now, that with proper enforcement, will ensure environmental security during construction.

.../3

We would ask that all these regulations and enforcement procedures be spelled out clearly before tendering so everyone knows going into this project what is expected and its cost.

We in this local construction area are proud of our beaches and natural environment. We can do this fixed link project with environmental security if the regulations are enforced. We have concerns about three different provincial environmental departments interpreting and enforcing different regulations (i.e. runoff into streams, septic systems, water pollutants, blasting regulations).

This is not the first structure of this size to be built. We can learn from other sites. This project is a positive step, both during the construction phase and as a link in our much needed infrastructure chain for the Maritimes.

I would hope that this environmental assessment is put together with some proper regulations before the tender phase and not after the work has started as an afterthought.

Respectfully Submitted,

Wayne B. Chambers

W. B. Chambers, P. Eng.
PAST-PRESIDENT
ROAD BUILDERS' ASSOCIATION
OF NEW BRUNSWICK

NEW BRUNSWICK INDUSTRIAL BENEFITS COMMITTEE

The Combined Voice of Consultants, Manufacturers and Contractors

P.O. Box 1282, Fredericton, New Brunswick E3B 5C8 - Telephone (506) 459-5770

March 15, 1990

Dr. David H. Barnes
Chairman, Federal Environmental
Assessment Panel
Holman Building, 2nd Floor
25 University Avenue
Charlottetown, P.E.I.

Dear Mr. Barnes:

The Industrial Benefits Executive Committee represents 14 construction-related associations in the Province of New Brunswick. Its mandate is to encourage and support the maximization of local content in area projects. In this case, the Committee could be characterized as a council whose normal province-wide interest is extended to encompass the entire Atlantic Region rather than just the Province of New Brunswick.

In our view, the so-called Fixed Link Project should be allowed to proceed in an orderly fashion, with the proviso that the successful developer be directed to honour its commitment to use of regional labour and materials in high ratio to the total. In this regard, the developer should be compelled to do so by a combination of financial incentive and penalty. It is our understanding that such criteria have been incorporated in the arrangements with developers to date, and our collective concern is that their essential nature not be de-emphasized in any way when the time comes for them to be implemented.

Our Committee wishes you and your colleagues success in your efforts to reach a conclusion. We are optimistic that it will turn out to be beneficial to all concerned, particularly in the long term.

Sincerely,

B.H. Daniel

Bruce H. Daniel, CAE
Executive Director

BHD/dr

Member Organizations:

Architects Association of New Brunswick
Association of New Brunswick Land Surveyors
Conseil Economique du Nouveau-Brunswick
Construction Association of New Brunswick Inc.
Mechanical Contractors Association of N.B.
Association of Professional Engineers of N.B.
Canadian Manufacturers Association - N.B. Branch
Consulting Engineers of New Brunswick
Metalworking Association of New Brunswick
Road Builders' Association of New Brunswick
Saint John Mechanical Contractors Employers Assoc.

Fixed Link

The Canadian Brotherhood of Railway, Transport and General Workers (C.B.R.T. & G.W.) wishes to advise that the Brotherhood fundamentally is opposed to the concept of a fixed link joining Prince Edward Island and New Brunswick.

The Brotherhood, which represents some 500 employees out of a total work force of 637, is opposed to a fixed link concept for a number of reasons which will be outlined in the following. I have come here today because we believe that the fixed link crossing issue is socially, economically and environmentally unwise, and we are soliciting your support to put a stop to any future plans of building a fixed link.

We believe, however, the issue of a fixed link has to be a decision made by the people of Prince Edward Island. It is interesting to note that approximately 59 percent of Islanders supported the plebiscite which was held last year even though the question was a fixed link, and they were not given a clear choice. If this panel were to recommend a project, Prince Edward Islanders should be given an opportunity to accept or reject such a project by plebiscite once again and this should be a recommendation of this panel.

Our Brotherhood believes that the well greased, slick machine of the Federal Government, through the Public Works Department, has attempted to sell to the people of Prince Edward Island a mega project of tremendous cost without dealing with the social, economic, environmental and/or cultural ramifications of such a project in a clear and precise way. At the same time the Federal Government is attempting to influence public opinion by changing its policies regarding transportation, i.e., closure and/or abandonment of railway lines and freezing the subsidy level of Marine Atlantic so that the service can be impeded.

The main theme of the Federal Government in this instance is not really any different than its actions and directions associated with other issues of public interest, i.e., free trade, transportation, G.S.T., etc., in that they have run ramshot over all organizations by not providing the necessary information, submitting incomplete evaluation reports, and not allowing sufficient time to have full public dialogue on such issues of public interest.

Notwithstanding what the provinces of Prince Edward Island, New Brunswick and Nova Scotia will lose in many areas not associated with the work force reduction, i.e., economically, environmentally and culturally, we feel compelled to tell this Committee what the social and economic impact of the loss of jobs in both ferry services will mean to Atlantic Canada if this project is allowed to proceed.

The Borden/Cape Tormentine ferry service employs 637 scheduled and non-scheduled employees. Each and every employee would lose his or her job if a fixed link were to be built. We have completed a detailed analysis of the three major locations in Prince Edward Island which would be affected by a loss of employment, as well as those jobs which would be lost out of the province. Our findings show that the Summerside area would be the major loser, with 258 lost jobs and associated lost revenue of approximately $7,088,550. The Borden area would lose 158 jobs, with approximately $4,341,050 in associated lost revenue. Charlottetown, the Provincial Capitol, would lose 151 jobs, at an approximate loss of related revenue of $4,148,725. In addition, our figures show that New Brunswick would lose approximately 70 jobs, with an approximate lost revenue of $2,100,000. These figures do not include any spin-off reduction of jobs in the administration offices of Marine Atlantic in Moncton and/or Charlottetown.

The Charlottetown Regional Headquarters has 14 middle-management positions which would be lost with an estimated $560,000 lost annually in wages alone. Marine Atlantic would have to reassess its requirement for the retention of the Regional Headquarters in Moncton as a consequence of the fixed link being built. It is perceived that the Regional Headquarters potentially could close because there would be no need to retain the middle-management positions and the work could easily be done out of Newfoundland with existing management within those Headquarters. It is estimated that 140 jobs are potentially at risk in the city of Moncton at an annual loss of salary equivalent to $5,600,000. I need not remind this panel of the severe economic loss to Moncton as a result of the closure of the Moncton Main Shop. Moncton cannot afford an additional drain on its economy as a result of an additional loss of jobs. More than 88 percent of all jobs lost will occur in Prince Edward Island.

Northumberland Ferry Services, which currently employs approximately 300 employees, could also lose jobs, and potentially the operation could close if a fixed crossing is built. It is estimated that 35 percent to 50 percent reduction in service requirements will occur, thus eliminating 150 jobs in the early stages of the completion of a fixed link. Estimated loss of revenue in wages alone would amount to approximately $4,100,000.

Estimated loss of jobs in terms of spin-offs totals 2,754 jobs. As well, lost revenue of $4,100,000 in fuel consumption will be lost to New Brunswick. It is estimated that $11,100,000 will be lost in services provided to Marine Atlantic. I wish to note that out of the $11,100,000 noted above, it is estimated that $3,100,000 is obtained from several hundred independent sources in Prince Edward Island.

The Federal Government argues that thousands of jobs will be created during the proposed construction period. However, the Public Works Department is telling Prince Edward Islanders that the majority of those jobs will be created in Prince Edward Island and at the same time, when meeting in New Brunswick, telling the construction industry that the vast majority of those jobs will be created in New Brunswick. We view that the short-term jobs, however large is the number, would be short-term gain for long-term pain. In essence, creating a few construction jobs for a short-period of time would put more than 950 employees on unemployment, therefore, it makes no sense.

Boom/Bust Affect

There have been various numbers discussed publicly which are inconsistent in nature with a true evaluation of actual construction jobs associated with the construction of the fixed link. Depending on what group or what politician talks about job creation, the numbers change.

I would like to refer you to a quote in a letter dated February 23, 1988, from Mr. McInnis, former Minister responsible for Public Works, to the Brotherhood, he wrote on Page 2, and I quote, "I feel, however, that we must also recognize the positive side of this project. It will give rise to more than 7,000 person-years of direct employment in the construction sector and it is estimated that an additional 13,000 person-years of indirect employment will also be created. These are short-term benefits."

My question to the panel is how many jobs actually are going to be created and where are those workers associated with job creation are going to be housed. Obviously, communities will be required to provide services for workers and their families in or around the construction area. There are significant social and economic impacts created by a boom/bust situation. The workers and their families will require housing and services including schools, churches, recreational facilities, water and sewage facilities, but to mention a few. Further there will be a requirement for additional policing services. Will a municipality be required to provide these services from its tax basis or will the provincial governments or the Federal Government be given the responsibility to provide these necessary services.

Once the project has been completed, the vacuum is created where workers no longer are required to live in the community but yet it has all of those facility which now become dormant. The communities themselves have to be made aware of the social implications that arise from a boom/bust situation. This has to be a major issue addressed by this panel.

Environmental Concerns

The Brotherhood believes that sufficient information has not been provided to the public or this panel dealing with the entire area of potential environmental disasters in the fishing and agricultural industries.

It is perceived that if a bridge is constructed, ice will stay in the Northumberland Strait longer which will affect the climate and this will have an impact on the fishing and agricultural industries.

Agriculture

During studies in the mid-70's regarding the Fundy Tidal Power project wherein Nova Scotia was contemplating the proposed hydro development, it was determined that a 1 degree temperature change could totally destroy the apple industry in the Annapolis Valley. In the case of the fixed link, no one can perceive how long the ice may stay in the Northumberland Straight. Of course it depends on how cold the weather is and to what extent the northern ice may flow in the Northumberland Strait which would be caught there until it melted. The implications are that if the ice stays in the Strait a month longer than normal, the potato industry in both New Brunswick and Prince Edward Island could be at risk. This panel must seriously consider these ramifications when rendering its decision with respect to its recommendation.

Fisheries

The big losers regarding the environmental damage that may be done by a fixed link will be within the fishing industry. If ice gets trapped in the Northumberland Strait for a long period of time, temperatures will be below normal. What impact will this have on the lobster industry which is a multi-million dollar industry? Will it affect the breeding stock of lobsters? Will it affect the molting of lobsters? Will the fishermen be able to go on the waters to fish lobster during the same lobster seasons as now exist? Will there be sufficient food chains for the lobsters and other species of fish as a result of changes in water temperatures?

These are but a few of the questions that are being posed by fishermen within the communities we live. The whole issue of the ice build up is one that does not seem to have been addressed to its full potential. Obviously, ice conditions depend on a number of factors including the degree of cold weather and the wind conditions which blow northern ice into the Northumberland Strait.

The cost associated with the lost jobs in the fishing industry in immeasurable. We know the true value of fish species caught in the Northumberland Strait, and we know that fishermen are concerned about their livelihood. Also, we know that fishermen want guarantees up front but what about the thousands upon thousands of other workers associated with an industry that depend on the supply of fish species which are caught. I am referring to the buyers who purchase the fish, the workers who produce the finished product, the business entrepreneurs who sell the commodity and, of course, the consumer who eventually buys the product. There are literally thousands of fish plant workers and buyers associated with the fishing industry in Atlantic Canada who make their living from the fishing industry. I need not remind this panel of the crisis in the fishing industry which developed this year basically because there was no long-range planning.

At stake and which requires explicit examination is the fishing industry and what the impact the bridge construction will have on it. One cannot presume that one has all the answers. One has to be absolutely certain that there will not be an impact because the consequences are grave. It is much like the "apple" philosophy. It is the individuals who live in the communities who have their own way of life in their communities and who make their livelihood from existing economic structures that have to live with any potential consequence. Therefore, it should be those individuals who ultimately make decisions which will have an impact on their lives and not politicians who do no understand their way of life.

I am not going to spend much more time on the issue of the impact the ice in the Northumberland Strait will have, however, I would like to say two things:

Firstly, in 1964, when I was 16 years old, I can remember that in the small community of Pugwash, N. S., on the 14th day of July, I could climb on an iceberg and jump into the swimming hole. Secondly, there are many well respected Captains who have sailed with Marine Atlantic on the body of water which the proposed fixed link will be built over. Those individuals should be requested to appear before this panel to tell you the true story of what northern ice can do to a fixed link.

I have lived on the Northumberland Strait for many years of my life, and I have fished many species of fish in the Strait as a youth with my father, and I personally have reservations with respect to a proposed bridge spanning the waters of the Northumberland Strait.

In conclusion, we believe that Prince Edward Islanders have a vested interest in the history of their province, and will determine whether or not the structure of the Island's society will change. Employees of Marine Atlantic and members of our Brotherhood have provided long and dedicated service to the travelling public, and we believe that the resolution to the traffic problem between the mainland and the Island could best be resolved by providing additional capital to Marine Atlantic in order to provide even better service to the travelling public.

In closing, I believe the people of Prince Edward Island will make a choice on the fixed link after they have been able to make an analysis of the pros and cons on the matter. However, if they are not going to be given the proper answers to their questions, we would suggest you say "no" to a fixed link, and say "yes" to a better ferry service.

Respectfully submitted on behalf of the Canadian Brotherhood of Railway, Transport and General Workers,

T A Barron

T. A. Barron
Representative

Minister of Public Works
CANADA
Ministre des Travaux publics

Ottawa, Canada
K1A 0M2

RECEIVED
FEB 29 1988
C. B. R. T. AND G. W.
MONCTON, N. B.

FEB FEV 23 1988

Mr. Garry T. Murray
Regional Vice President
Canadian Brotherhood of Railway, Transport
and General Workers
Room 314
96 Norwood Avenue
Moncton, New Brunswick
E1C 6L9

Dear Mr. Murray:

Re: The fixed crossing project; yours of January 21

I am surprised that you interpreted Mr. Duncan's statement in the newspaper to mean that there would be direct negotiations between my Department and the members of your union. As project leader and chairman of the project's planning committee, Mr. Duncan is representing the entire federal government on this project, and not just the Department of Public Works.

To my knowledge, neither he nor anyone else has suggested that the employer-employee relationship between your union and Marine Atlantic be circumvented, or that the collective bargaining process be avoided. Mr. Duncan's comment was clearly general in nature. It was not intended to describe any planned discussions.

...2

When we were planning the fixed crossing project, we identified early on that the most significant negative impact would be the loss of ferry worker jobs. We therefore announced that, in conjunction with Marine Atlantic, the Government would develop an assistance program for displaced ferry workers. The program will include job training, relocation assistance, early retirement benefits, and the right of first refusal by qualified candidates for new jobs on the fixed crossing. The Government is committed to working with and through Marine Atlantic, your union, and other agencies so that any negative impacts on individual workers, and on the communities of Borden and Cape Tormentine, can be reduced.

On Friday, January 29, 1988, I met with Mr. Gerard Sexton and Mr. Michael Gaudet of your union, who provided me with a brief on this issue. At that time, I restated the Government's commitment to do all it can to assist those members of your union who could be adversely affected by this project.

While it's too early to tell what the negative impact of ferry worker jobs lost because of the project will be, we do have six to seven years to work and plan together to minimize these impacts.

I feel, however, that we must also recognize the positive side of this project: it will give rise to more than 7,000 person-years of direct employment in the construction sector, and it's estimated that an additional 13,000 person-years of indirect employment will also be created. These are the short-term benefits. Over the long-term, hundreds of new jobs, in Prince Edward Island and New Brunswick, will be created in the tourism, manufacturing and transportation fields.

Let's work together on this so we can maximize the positive and minimize the negative, for the benefit of all Atlantic Canada.

Sincerely,

Stewart McInnes

FIXED LINK

TO: ENVIRONMENTAL ASSESSMENT PANEL

① what studies have been done on ice conditions in Northumberland Strait in the months of april and May; such as those in 1984 + 1987?
and, are further studies planned when this phenomenon occurs again?

② Can a bridge be built that would have its piers staggered in such a way so as to avoid the most productive fishing bed areas?

③ How many days each winter do the ferries not ru

④ what studies have been done in mid-strait in winter to estimate the number of days that a bridge would be impassable due to white-outs from blowing snow?

⑤ Where will all the road salts go?

⑥ Concerning the possibility of a sport fishing; what species of fish would they be after and what type of harbour would be built for them?

⑦ A Bridge - short-term GAIN and long-term PAIN

STEVE JONES, 1990

1

Mémoire sur le projet de raccordement dans le détroit de Northumberland

Mémoire soumis à
La Commission d'évaluation environnementale
Jim Clarke, secrétaire exécutif
le 15 mars 1990, polyvalente Louis-J.-Robichaud
Shédiac, N.-B.

soumis par
La Commission d'aménagement Beaubassin

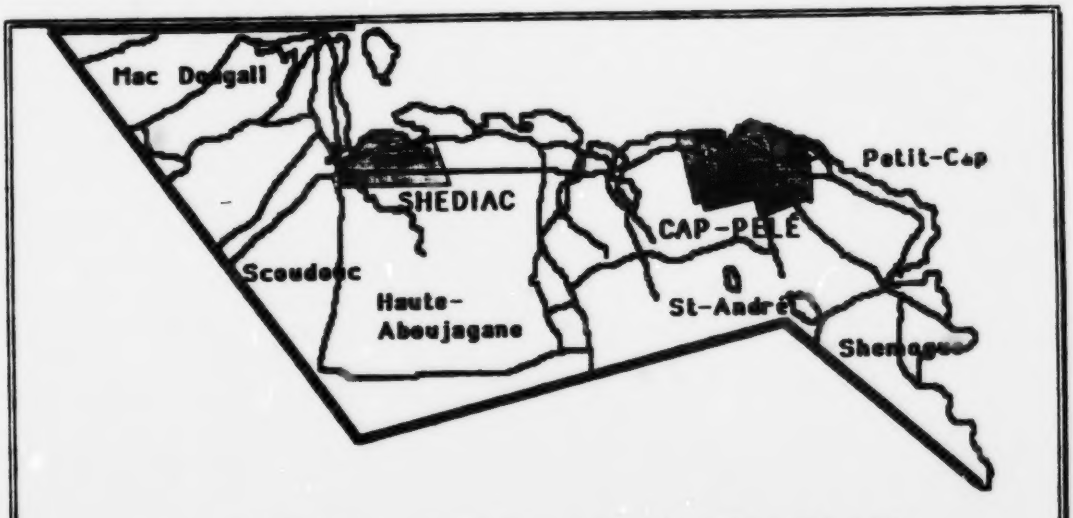
C. P. 459, 31 chemin Saint-André
Cap-Pelé, N.-B. E0A 1J0
tél: (506)577-4391

1. Introduction

Le projet de raccordement dans le détroit de Northumberland est perçu par la Commission d'aménagement Beaubassin comme une opportunité unique de développement économique. La création d'emplois directs et indirects, les opportunités de création de nouvelles entreprises et de nouveaux services sont vues de façon très positive par la C.A.B. Un tel méga-projet devrait engendrer une infrastructure qui va rester une fois le projet terminé. Nous avons eu l'occasion d'examiner sommairement quelques-uns des volumineux documents soumis par Travaux publics Canada à la Commission d'évaluation environnementale chargée de l'examen du projet de raccordement dans le détroit de Northumberland. Nous en ressortons avec une perspective optimiste envers ce projet.

La Commission d'aménagement Beaubassin avait lors des audiences de l'année dernière fait état de ses inquiétudes par rapport à l'impact environnnementale d'un projet de cette envergure. Nous indiquions qu'on ne doit en aucune façon causer des dommages, aussi minimes soient-ils, qui compromettraient l'industrie de la pêche et du tourisme, qui sont à la base de l'économie régionale. Nous insistions pour que l'impact socio-économique soit d'abord bénéfique et que l'on s'assure que des mesures viendront compenser les effets dommageables sur notre économie et notre qualité de vie. C'est dans cette optique que nous avons examinés les documents soumis par Travaux publics Canada à la Commission d'évaluation environnementale chargé de l'examen du projet de raccordement dans le détroit de Northumberland entre l'Ile-du-Prince-Édouard et le Nouveau- Brunswick.

2. Description du district



Le district d'aménagement Beaubassin

Le district d'aménagement Beaubassin a une superficie d'environ 700 km carrés et une population totale d'environ 18,000 habitants. Cette population double, sinon plus, durant la saison estivale. Les secteurs économiques principaux sont le tourisme et la villégiature, la pêche et les industries de transformation y étant reliées, et les services.

Ce district englobe l'ensemble de la paroisse civile de Shédiac et la partie ouest de la paroisse de Botsford. Deux municipalités sont situées dans ce district, soit le village de Cap-Pelé et la ville de Shédiac. La partie est de la paroisse de Botsford, la région de Cap-Tourmentin et les environs étaient administrés par la Commission d'aménagement Beaubassin. La Commission d'aménagement de Tantramar est cependant entrée en fonction le 1^er^ mars 1990.

Malgré la faible taille de ce district d'aménagement, il s'agit de l'un des plus actifs de la province avec une moyenne de 800 permis de construction émis pour une valeur moyenne de 11 millions de dollars par année depuis la création du district en 1981.

Le district est géré par une Commission de quatorze membres qui emploi quatre employés. La Commission est responsable de la planification; de l'administration des règlements et arrêtés de zonage, de construction et de lotissement; tout en offrant un service d'information et de conseils en aménagement à la population.

3. Nos préoccupations

Impact environmental

Nous sommes satisfaits que l'étude d'impact environmental a mis une emphase suffisante sur l'industrie de la pêche. Cette ressource renouvelable est vitale à notre économie et l'on doit en aucune façon la compromettre. Les études (Marine Habitat Survey-Hurley Fisheries, p. 76; Fishery Obsevation Program-Porter Dillon) indiquent que la construction du projet pourrait être bénéfique à l'habitat du homard. Lorsqu'on connaît l'importance (90% de la valeur débarqué en 1988) de cet espèce dans l'industrie de la pêche locale, nous nous réjouissons de cette conclusion. Les travaux de construction vont cependant nuire aux activités de pêche et un pont pourrait avoir des effets négatifs à court et à long terme sur certaines espèces commerciales. Des mesures de compensation doivent faire partie du projet.

L'écologie côtière est par ailleurs très sensible. Il faut s'assurer qu'aucun aménagement ou activité puisse interférer avec le processus naturel. Il faut réaliser l'importance qu'a la côte pour l'industrie du tourisme et pour notre qualité de vie collective.

Impact socio-économique

Parmi les effets directs d'un tel projet que nous craignons le plus, il y en a trois qui retiennent toujours notre attention:

- Réseau routier: Il faut s'assurer que le réseau routier puisse accommoder le flux supplémentaire d'automobiles et de camions que va amener les travaux de construction et l'achalandage supplémentaire anticipé une fois le projet terminé. La route 15 de Robichaud à Shemogue est particulièrement vulnérable. Une circulation lourde affecte déjà la quiétude des communautés sur ce tracé, plus particulièrement les résidents. Nous avons rien appercu dans les études supplémentaires qui adressent cette préoccupation.

- Carrières: Si l'option choisi est un pont, on prévoit qu'il y aura besoin de matières premières tels que du gravier, du sable, etc... Notre arrière pays est déjà décimé par trop de cavités causées par l'exploitation de carrières. S'il doit y avoir exploitation de carrière dans notre district, ces activités devront être coordonnées et suivies de près afin d'assurer un rétablissement du site. La déclaration des perspectives d'urbanisme que nous avons proposé au Ministre des Affaires municipales fait état de cette préoccupation.

- Camps de construction: Non non et non, on ne doit permetre l'aménagement de camps de construction. Premièrement, pour les problèmes sociaux que ça va engendrer. Les expériences d'ailleurs démontrent que le taux de criminalité et plusieurs autres problèmes sociaux augmentent autour de telles "cités" temporaires. Nous pensons que le point le plus important est cependant le gaspillage d'infrastructures que représentent de tels camps de construction. Les municipalités environnantes ont besoin d'améliorer leurs systèmes d'eaux et d'égouts et pourraient mettre un usage de telles infrastructures après la fin des travaux de construction du projet de raccordement. L'étude de Smith Green & Associates, Increased Need for Support Services for Construction Camp, nous a pas convaincu. Nous pensons que la Commission d'évaluation environmentale chargée de l'examen du projet de raccordement dans le détroit de Northumberland doit recommander l'intégration des travailleurs dans les communautés incorporées environnantes en utilisant soit les accommodations existantes ou de nouvelles constructions permanentes (option 3 à la page 2 de l'étude de Smith Green).

Nous maintenons nos préoccupations par rapport aux effets indirects.

- Effets indirects: Plusieurs effets indirects sont également prévisibles. On n'a qu'a penser aux effets que l'abondance d'emplois dans un court laps de temps aura sur les petits entrepreneurs de la région qui verront leurs employés les abandonner pour les meilleurs salaires qu'offrira ce méga-projet. L'étude de Smith Green & Associates, Socio-Economic Effects Within the Region and on Particular Communities (page 15), fait état des effets sur l'emploi. Qu'adviendra-t-il des entreprises de boucanage de hareng de Cap-Pelé et des usines de transformation de poissons et de fruits de mers de la région s'ils ne peuvent plus compter sur leur réserve d'emploi traditionnel ou qu'ils doivent payer des salaires exhorbitants pour faire compétition aux salaires offerts par ce projet de courte durée? D'autres effets, non prévisibles pourraient venir débalancer l'économie régionale. Il faudra s'assurer que les programmes de développement économique soient structurés afin de reconnaitre ces effets et assurer qu'aucun entrepreneur ou communauté de la région se trouve à subir des conséquences néfastes de ce projet.

Les études antérieures semblent n'avoir pas tenu compte de plusieurs de ces eléments et en particulier sur leur impact dans le district d'aménagement Beaubassin.

Archéologie côtière

Un élément qui semble être toujours absent des études est l'impact de ce projet sur l'archéologie côtière. On sait que la région a été habitée par des amérindiens depuis plusieurs millénaires. La présence des Acadiens de la pré-dispersion et la colonisation récente ont toutes laissées des traces qu'il ne faudrait pas effacer avec un tel projet. Nous suggérons donc qu'une étude de l'archéologie côtière soit entreprise avant que ce projet procède.

4. Conclusion

Nous réalisons l'urgence de nous organiser afin de pouvoir accommoder convenablement l'arrivée de ce méga-projet. La région du sud-est se trouve devant un besoin immédiat de planification. Nous suggérons un processus de planification stratégique tel que promu par l'Association des urbanistes du N.-B. Pour sa part, la Commission d'aménagement Beaubassin a soumis au Ministre des Affaires municipales une déclaration des perspectives d'urbanisme pour le secteur non-constitué du district d'aménagement (voir document préliminaire en annexe). Cette déclaration des perspectives d'urbanisme est destinée à coordonner les effets du projet de raccordement permanent dans le détroit de Northumberland sur le secteur d'aménagement non-constitué Beaubassin. Des consultations entre les différents paliers de gouvernement, les intervenants légitimes du secteur non-constitué, les nombreuses compagnies et agences impliqués dans le projet de raccordement devront être optimisés afin d'assurer que les visées de cette déclaration des perspectives d'urbanisme sont rencontrées.

Il faut s'assurer que les communautés du sud-est ont les infrastructures nécessaires pour accommoder ce projet et que l'impact négatif sur les entrepreneurs de notre région sera adéquatement compensé.

En somme nous disons oui au projet si des mesures de compensation des pêcheurs, des entreprises et des communautés affectés en font partie. Nous maintenons nos préoccupations relatives aux effets sur l'environnement côtier, sur la circulation routière, sur l'exploitation de carrières et sur l'emploi local. Nous disons non aux camps de construction et nous demandons qu'une étude d'impact sur l'archéologie côtière soit entamée.

Annexe:
Déclaration des perspectives d'urbanisme secteur d'aménagement non-constitué Beaubassin, document préliminaire, le 25 janvier 1990

Atlantic Provinces Chamber of Commerce
Chambre de commerce des provinces de l'Atlantique

BRIEF TO THE
ENVIRONMENTAL ASSESSMENT REVIEW PANEL
ON
THE NORTHUMBERLAND STRAIT CROSSING PROJECT

Submitted by
the
ATLANTIC PROVINCES CHAMBER OF COMMERCE

Presented by Noëlla J. LeBrun
Director of Policy and Administration

March 15, 1990
Shediac, N.B.

COINOREPIC

236 rue St.George St., Suite 110, Moncton, NB E1C 1W1 (506) 857-3980 Fax: (506) 859-6131

INTRODUCTION

The Atlantic Provinces Chamber of Commerce welcomes the opportunity to make this presentation to the Environmental Assessment Review Panel here in Shediac.

The Atlantic Chamber is a federation of 55 community chambers and boards of trade in the four Atlantic Provinces and the four provincial chambers of commerce which collectively represent over 12,000 businesses in Atlantic Canada.

The Atlantic Provinces Chamber of Commerce has been a proponent of the fixed link for a number of years. The Chamber believes it is a project of great importance to the future of Prince Edward Island and New Brunswick. It would be of benefit to all Atlantic Canadians.

The construction of a fixed link is without doubt one of the most important transportation, economic, environmental, and social questions facing Prince Edward Island citizens since the Confederation.

Many studies have been carried out over the years. The majority of Prince Edward Island citizens have indicated in January 1988 their favourable decision for a fixed link with the mainland.

This brief will comment on key issues surrounding the fixed link.

SOCIO-ECONOMIC IMPACTS

The economic benefits during the construction phase would be significant. The construction of a fixed link will bring a large scale construction project to the provinces of Prince Edward Island and New Brunswick. Public Works Canada has estimated that the capital expenditures would be in the order of $700 million ($1989). These costs have been assigned to the following major categories (Delcan - Stone & Webster, 1989):

Labour	- $175 million (25%)
Materials	- $280 million (40%)
Construction equipment	- $175 million (25%)
Engineers/Management	- $70 million (10%)

In addition to direct employment arising from construction activity, there will also be indirect effects and induced impacts. Indirect effects result from industrial and commercial activity required to provide goods and services which are inputs to the direct project requirements. Induced impacts arise from the spending of household income earned by those active in direct and indirect activites.

The construction project will offer Atlantic Canadian businesses the opportunity to supply goods and services needed during the project. In addition, there will also be the spin-off benefits mentioned above.

ENVIRONMENTAL IMPACTS

Careful planning and action are needed on the part of all environmental agencies to ensure that potential impacts are fully mitigated.

With the state-of-the-art technology, we do not feel that the fixed link would harm the environment. From deliberations that we have been able to gather, the fixed link would be the least damaging to the environment. Large bridge spans should not be adversely affected by ice flow.

We see no great and long-term effects to the environment as long as all matters which have to be dealt with are being considered.

TOURISM IMPACTS

Tourism impacts of a fixed crossing have been demonstrated in studies. Better access to the Island will provide an increase in tourism. The bridge is expected to improve the flow of traffic on Island highways generally and trafic to and from the Island.

A substantial increase in the number of visitors will occur in the immediate post-construction phase of the bridge. The increase in subsequent years is expected to revert to a more normal 2.5% per year (Smith Green & Associates 1989).

The increase in tourism will create additional demands on the accommodations and food services sectors thus impacting on demands for land for accommodations and recreational use.

Labour supply impacts identified are possible increased demands for human resources, an increase demand for competent, trained, front line, supervisory and managerial personnel and an increase in seasonal employment.

With an increased ease of movement back and forth to the Island, the potential exists for new developments such as a retirement community on the Island. A project of that nature would generate more income for the Island as well as create more jobs.

Given appropriate planning and action taken by the responsible Government and tourism industry associations, most impacts of a bridge crossing are likely to be positive.

TRANSPORTATION

Industry representatives have affirmed in earlier findings that a fixed crossing will result in increased efficiency through decreasing the time and cost required to transport agricultural and other products to and from the Island. It is expected to improve access to markets as a result of gains in timely and predictable deliveries.

The fixed crossing is a vital communication link to the mainland offering opportunities for future developments in the agricultural, fishing and tourism industries.

CONCLUSION

The Northumberland Strait Crossing project is an essential feature in improved tourism and transportation which are of vital concern in Atlantic Canada.

The fixed link must be seen as the final link to the rest of the country, and as a forward step in the growth of the province of Prince Edward Island.

The Atlantic Provinces Chamber of Commerce recognizes the importance of considering environmental impacts, and urges the Environmental Assessment Review Panel to consider all recommendations for appropriate mitigation actions.

The Chamber recommends that the Federal government facilitate the construction of the fixed link as soon as possible providing that any tolls to be charged for the use of the fixed crossing do not exceed the projected cost of ferry tolls.

The Atlantic Provinces Chamber of Commerce appreciates the opportunity to make this presentation to the Environmental Assessment Review Panel.

Atlantic Provinces Chamber of Commerce
Chambre de commerce des provinces de l'Atlantique

MÉMOIRE À LA
COMMISSION D'ÉVALUATION ENVIRONNEMENTALE
CHARGÉE D'EXAMINER LE
PROJET DE RACCORDEMENT DANS LE DÉTROIT DE NORTHUMBERLAND

présenté
par la
CHAMBRE DE COMMERCE DES PROVINCES DE L'ATLANTIQUE

Présentation par Noëlla J. LeBrun
Directrice des politiques et de l'administration

Le 15 mars 1990
Shediac (Nouveau-Brunswick)

COINOREPIC

236 rue St.George St., Suite 110, Moncton, NB E1C 1W1 (506) 857-3980 Fax: (506) 859-6131

INTRODUCTION

La Chambre de commerce des provinces de l'Atlantique est heureuse d'avoir l'occasion de s'adresser à la Commission d'évaluation environnementale lors de son passage à Shediac.

La Chambre de commerce de l'Atlantique regroupe 55 chambres de commerce et boards of trade régionaux des quatre provinces atlantiques et les quatre chambres de commerce provinciales qui représentent dans leur ensemble plus de 12 000 entreprises au Canada atlantique.

La Chambre de commerce des provinces de l'Atlantique est depuis plusieurs années en faveur d'un lien fixe. Elle croit qu'un lien fixe constitue un important projet pour l'avenir de l'Île-du-Prince-Édouard et du Nouveau-Brunswick. Un tel projet bénéficierait à tous les résidents de la région atlantique.

La construction d'un lien fixe est sans contredit l'une des plus grandes questions de transport, d'économie, d'environnement et de société que doivent affronter les résidents de l'Île-du-Prince-Édouard depuis la Confédération.

De nombreuses études ont été effectuées au cours des ans. La majorité des insulaires ont indiqué en janvier 1988 qu'ils appuyaient l'aménagement d'un lien fixe avec la terre ferme.

Le présent mémoire portera sur les éléments clés de cette question d'un lien fixe.

RETOMBEÉS SOCIO-ÉCONOMIQUES

Les avantages économiques pendant la construction seront considérables. En effet, il s'agit d'un projet de construction à grande échelle pour l'Île-du-Prince-Édouard et le Nouveau-Brunswick. Selon les calculs de Travaux publics Canada, les dépenses en capital s'élèveraient à 700 millions de dollars (dollars de 1989). Cette somme serait répartie entre quatre grands postes de dépenses (Delcan - Stone & Webster, 1989) :

Main-d'oeuvre	175 millions $ (25 %)
Matériaux	280 millions $ (40 %)
Équipement de construction	175 millions $ (25 %)
Ingénieurs / gestion	70 millions $ (10 %)

En plus des emplois directs créés par la construction d'un lien fixe, un tel projet aura également des effets indirects et induits. Les effets indirects seraient reliés aux activités industrielles et commerciales nécessaires pour fournir les biens et les services pour répondre aux besoins immédiats du projet. Les effets induits pour leur part découleraient des dépenses de menage des personnes prenant part aux activités directes et indirectes du projet.

Le projet de construction offrirait aux entreprises du Canada atlantique un autre marché pour leurs biens et services. Il y aurait également les bénéfices dérivés mentionnés plus haut.

RETOMBEES ENVIRONNEMENTALES

Toutes les parties en cause doivent tenir compte de l'environnement et faire preuve d'une grande prudence dans leur planification et leurs activités de façon à atténuer le plus possible les répercussions négatives.

Grâce aux technologies les plus récentes, nous croyons qu'il est possible d'aménager un lien fixe sans nuir à l'environnement. D'après les opinions que nous avons examinées, un lien fixe serait la solution la moins dommageable pour l'environnement. Un pont à longues travées ne devrait pas souffrir du mouvement des glaces.

Nous ne voyons aucun effet nocif important à long terme pour l'environnement en autant que tous les éléments qui entrent en ligne de compte soient attentivement étudiés.

RETOMBÉES TOURISTIQUES

Les répercussions d'un lien fixe sur le tourisme ont déjà fait l'objet de plusieurs études. Un accès plus facile à l'île augmentera l'activité touristique. Un pont devrait dans l'ensemble améliorer le débit de la circulation sur les routes de l'Île ainsi que entre l'Île et le continent.

Une majoration importante du nombre de visiteurs devrait se produire au cours de la phase initiale d'exploitation du pont puis, dans les années suivantes, l'augmentation reviendrait à un taux plus normal de 2,5 % par année (Smith Green & Associates, 1989).

Un accroissement du tourisme créera de nouvelles demandes pour les secteurs de l'hébergement et des services alimentaires, ce qui en retour créera de nouvelles demandes en terres pour l'hébergement et les loisirs.

On a déterminé que la construction d'un lien fixe pourrait, en ce qui concerne les ressources en main-d'oeuvre, accroître la demande en ressources humaines, notamment en personnel de gestion et de surveillance ayant la formation et l'expérience pour répondre aux nouveaux besoins et en personnel saisonnier.

Une circulation plus facile entre l'Île et la terre ferme offrirait des possibilités de nouveaux développements, par exemple la création d'un village de retraite dans l'Île. Un projet d'une telle nature apporterait des revenus et des emplois supplémentaires pour l'Île.

Si le gouvernement et les associations touristiques veillent à bien planifier le projet et à prendre toutes les mesures qui s'imposent, la plupart des répercussions de l'aménagement d'un pont seront sans aucun doute positives.

TRANSPORT

Les représentants de l'industrie ont affirmé dans des études précédentes qu'un lien fixe permettrait d'accroître l'efficacité du transport grâce à une diminution du temps et des coûts du transport des produits agricoles et autres en direction ou en provenance de l'Île. Un lien fixe améliorerait l'accès aux marchés puisqu'il permettrait de mieux prévoir et planifier les livraisons.

Le lien fixe est un moyen de communication essentiel avec la terre ferme offrant des possibilités de développements futurs en agriculture, en pêche et en tourisme.

CONCLUSION

Le projet de raccordement dans le détroit de Northumberland est un élément primordial par rapport à l'amélioration des industries du tourisme et du transport, deux domaines d'une importance capitale pour le Canada altantique.

Un lien fixe doit être considéré comme la dernière étape d'adhésion au reste du pays et comme un pas en avant pour le développement de l'Île-du-Prince-Édouard.

La Chambre de commerce des provinces de l'Atlantique recommande que le gouvernement fédéral facilite la construction d'un lien fixe dès que possible, en autant que tout péage exigé pour l'utilisation d'un tel lien fixe ne soit pas supérieur au péage prévu d'un traversier.

Nous remercions la Commission d'évaluation environnementale de nous avoir permis de faire cette présentation.

COMMUNIQUÉ

George S. Rideout, M.P.
Moncton
Associate Critic
for Justice

George S. Rideout, député
Moncton
Porte-parole suppléant
pour la Justice

HOUSE OF COMMONS
CHAMBRE DES COMMUNES
CANADA
K1A 0A6

For Immediate Release

March 15, 1990

MONCTON MUST ENSURE BENEFITS OF FIXED LINK

(Moncton) - George Rideout, M.P. for Moncton appeared this evening before the Environmental Assessment Panel which is reviewing the Northumberland Strait fixed link crossing proposal. Although solidly supportive of the proposal, Rideout spelled out his concerns regarding the effects the construction of a bridge will have on his riding and the Southeast region of the province.

"While plenty of activity surrounding the project has been ongoing for some time now, we in this area have been all but sidestepped." Rideout continued, "Repeated calls to the Federal Government for socio-economic studies of how the bridge will impact on Southeastern New Brunswick have been ignored and no one, knows, or has made any attempt to determine, how we are going to be affected. Well thought out economic strategy is not made on gut feeling and speculation."

Mr. Rideout continued, "The concept of a fixed link must not be looked at in isolation. To maximize benefits, a bridge must be considered in conjunction with an improved TransCanada highway and must form part of an integrated transportation network. Furthermore," he added, "it must be ensured that the bridge will be a viable alternative to the present day ferry service and that it will not financially drain other potential development projects."

Serious apprehensions about the possible hazards a fixed link would pose to the environment and the fisheries have been amply voiced by a number of other groups. Mr. Rideout pointed out that any damage done to fisheries and environment will impact negatively on the economy of Greater Moncton and on its efforts to diversify its economy in the area of sea and agriculture products. "However, I am pleased to see that the government has accepted the recommendation to set up an industry committee to establish a mechanism for compensating fishermen".

A survey conducted last November, and consultations with community and business groups have indicated that, although the population of Greater Moncton is aware of the proposal for a bridge, no concerted effort has been made to prepare for its construction. "I am firmly committed to working closely with our neighbous in Beausejour, with the business community and the Université to ensure that this project is as beneficial as possible for our region."

COMMUNIQUÉ

George S. Rideout, M.P.
Moncton
Associate Critic
for Justice

George S. Rideout, député
Moncton
Porte-parole suppléant
pour la Justice

HOUSE OF COMMONS
CHAMBRE DES COMMUNES
CANADA
K1A 0A6

Pour diffusion immédiate

Le 15 mars 1990

MONCTON DOIT BENEFICIER DU LIEN FIXE!

(Shédiac) - C'est devant les membres de la Commission environnementale sur le projet d'un lien fixe entre le Nouveau-Brunswick et l'Ile-du-Prince-Edouard que le député fédéral de Moncton, George Rideout, s'est dit inquiet que le Grand Moncton soit écarté des retombées considérables engendrées par cette construction estimée à près d'un milliard de dollars. "Le manque de collaboration obtenue à date du Ministre fédéral des Travaux publics face à mes requêtes pour de plus amples renseignements me porte à croire que Moncton risque de passer inaperçu," a-t-il affirmé.

Tout en manifestant son appui pour la construction d'un pont dans le détroit de Northumberland, le deputé de Moncton a insisté sur l'importance que le Gouvernement fédéral se dote d'une stratégie de transport à l'endroit des provinces de l'Atlantique. "L'augmentation anticipée quant au volume de la circulation routière en destination de l'I-P-E et du sud-est du N.-B. confirme selon moi le besoin de considérer le lien fixe et le projet d'une nouvelle transcanadienne simultanément" a déclaré M. Rideout. De plus, les coûts associés à l'immobilisation et au maintien d'un lien fixe par le secteur privé devraient être maintenus de sorte à ne pas empêcher la réalisation de d'autres projets de grande importance pour notre région.

En ce qui concerne les pêcheries et l'environnement, le député fédéral se dit heureux de constater que le gouvernement instaurera un comité de l'industrie afin de négocier un mécanisme de compensation pour les pêcheurs. Il a rappélé la Commission face à son obligation de prévenir contre des effets de construction trop néfastes sur les stocks marins "Toute perturbation trop sévère à l'économie des communautés côtières dans le sud-est du N.-B. ne pourrait que nuire à la prospérité de Moncton et à sa stratégie visant à diversifier vers les industries de produits de mer et agro-alimentaires," a-t-il soutenu.

Un sondage d'opinion effectué dans la région de Moncton en novembre 1989, jumelé à une concertation avec les gens d'affaires, confirme l'intérêt grandissant de la population de cette circonscription pour le projet du lien fixe. "Je compte travailler avec nos voisins de Beauséjour, le secteur privé et l'Université de Moncton afin de m'assurer que la construction du lien fixe soit bénéfique à notre région."

I welcome this opportunity to address members of the Environmental Assessment Panel on the issue of the proposed Northumberland Strait Crossing project. Much has been said about the fixed link and you have been given the arduous task of determining the best course of action. As Member of Parliament for Moncton I want to make sure that the concerns of my riding are voiced.

I was originally scheduled to appear at the hearings in Moncton last night. But this would have been far too simple and logical, and politicians as you know, are always trying to complicate things. The truth of the matter is that I had an obligation in Ottawa and was unable to get down last night. I appreciate the time you are allowing me here in Shediac.]

Contrary to what I have just said about politicians complicating things, I will try to be as clear as possible about my position with regards to the proposed fixed link project. **I am in favour of this project.** It will have indisputable economic benefits for the Moncton riding and for the whole of Southeast New Brunswick. But my support is not unqualified. I believe there are very serious concerns which neither the Environment Assessment Panel nor the Government have yet addressed and for this reason I have very real reservations.

INTEREST IN THE PROJECT

My interest in this project has roots that go a long way back. The position I am presenting to you stems from work undertaken by my office that has been ongoing for close to a year. There has been all kinds of activity on the fixed link – most of it concentrated in Charlottetown and Halifax. Obviously any fixed link will have two ends, one of which will land on New Brunswick shores. As the closest major urban centre to the construction site on this side, the whole of the Moncton area has a vested interest in what is going on. Last summer, after all the hearings had been completed and Mr. David Barnes of the Environmental Panel wrote to Public Works requesting additional studies, I became concerned that the interests of the people of Greater Moncton were not being taken into account. I wrote to the Minister of Public Works asking him to ensure that additional studies to be carried out include one that focused on the short and long term socio–economic impacts such a project would have on the Southeast region of New Brunswick. No study was done to my disappointment.

I wanted to know what the concerns were of the people of my riding with respect to this project. How familiar were they with the proposal? Were they favourable? And to this end we undertook a survey within the riding, the conclusions of which I have submitted with my presentation.

FINANCIAL VIABILITY

While supporting the construction of a fixed link crossing, I share concern along with members of the business community over its short and long term financial viability.

The Provincial Forecasting, and Analysis Group of the Conference Board of Canada, suggested in its 1987 analysis of the fixed link crossing proposal that the completion of a bridge would require a direct expenditure of over $600 million during the projected four year construction period. Additionally, the ferry service between Cape Tormentine and Borden will continue as usual during the construction period. I also question how the federal government plans to recuperate its initial capital costs without unduly affecting either the travelling consumer or future funding of other potential mega projects in the region.

Under the terms of the fixed link proposal's agreement, the federal government and private sector undertake to construct, operate and maintain for a period of thirty five years, a fixed link crossing. This means that the contracting company would receive an annual subsidy from the federal government equivalent to what is now being paid to Marine Atlantic to maintain ferry service. It is anticipated that tolls on the bridge would be equivalent to current ferry charges. At present the federal government subsidy to Marine Atlantic is about $22 million and we want to ensure that the level of subsidies will be maintained and will not be significantly altered. Fares for ferry service generate about $13 million for a total operating cost of $35 million. The current fare for a family of four travelling to PEI is about $15.50. We have to ensure that the cost continues to be affordable to the public once the bridge is in operation.

Mega projects seem inevitably to suffer from the dreaded disease of budget overrun. It is my fear than any drastic increase, either in expenditures during construction or in later operating costs, will have a negative effect on future joint Federal/New Brunswick initiatives such as a badly needed TransCanada highway.] This, of course, can only be speculation at this time but the effects could be serious.

LONG TERM SOCIO-ECONOMIC IMPLICATIONS

Both the survey and my consultations with the business community indicate a general desire for the project to go ahead as I indicated ealier. The survey shows that approximatively 69% of my constituents favour the construction of a fixed link. Furthermore, it is worth noting that members of the business community feel that the impetus for the project is clear and that the project will go ahead. Among all those consulted, and everyone we have spoken to, there is consensus on one question - and that is on how little hard data is available. No one has any specifics with which to make educated or at least calculated conclusions as to how the project will affect Southeast

New Brunswick. Most of the feedback is based on general impressions or gut feelings. And I hazard to guess that no one, not you the panel members, not the Department of Public works nor the Minister of Public Works himself, has any specific idea as to how this project will affect we who live in this area. The people who are in the driver's seat and who will be deciding on a project that will have a dramatic effect economically and socially, know little more than the general public. And no effort has been made to collect any data. This lack of information on long term socio-economic implications for Southeastern New Brunswick is frightening.

I have grave concerns about Marine Atlantic maintaining its head office and associated employment in Moncton. We have government assurances that the head office will remain but we have had thos before. It is my belief that the head office will move and we must therefore weigh the net benefits of the fixed link, if any carefully.

We have worked, in Greater Moncton at picking ourselves up and carrying on. We are resilient. But we have not survived by accident. We have done this by building a strong partnership between the public and private sectors in order to assure ourselves a promising future. A joint federal/provincial/municipal initiative has resulted in the establishment of an economic development strategy aimed at diversifying the region's economy. This plan was clearly spelled out in the 1989 Lavalin Report which chartered a re–industrialization strategy for the Moncton region. Recommendations were made that we diversify our economy by building on the strengths of our agricultural and sea product base as well as our entrepreneurial spirit. A base of data and other information, indicating what we can expect from the construction of a fixed link, would help us plot a path of economic development for the future. This is precisely what we do not have.

What we do know is that the construction of a bridge is extremely labour intensive. Furthermore, 67% of the constituents in my riding feel that the fixed link project would create jobs that would benefit the Moncton region. The Conference Board of Canada (1987 Report) forsees the creation of more than 3,000 person years in the construction industry with an additional 4,800 person years being generated by economic activity in other sectors. Nevertheless, a study undertaken by Overseas Canadian (1987) states that the majority of jobs generated during construction would be filled by workers displaced due to the construction. Here I am refering to those in traditional sectors such as fisheries and agriculture. Consequently, there is underlying confusion as to number of "real new jobs" created by this project.

I am concerned about the boom/bust effect that a large influx and subsequent exodus of labourers might have on the economy of Greater Moncton. There are ways of planning for this if proper information is available. For the relatively short span of four years, during the actual construction period, Moncton will be called upon to service those working on the project. We have no idea of the magnitude of services that will be required, only that it will be great. We need some empirical information in order to prepare both for the boom and the after–boom.

NEED FOR COMPREHENSIVE TRANSPORTATION STRATEGY

Although most are generally supportive of the project, many leading members of the business community in my riding feel that the construction of a bridge in the Northumberland Strait and an improved TransCanada highway should be linked together.

It is doubtful that the existing twenty year old highway, particularly in Southeastern New Brunswick, could sustain additional traffic generated by increased trade and tourism between the Island and the Mainland. This view is also shared by members of the Beaubassin Urban Planning Commission serving the Shediac/ Cap–Pelé area which appeared before you last July, they stated, "It is imperative that our highway system be able to accomodate additional traffic once the fixed link has been completed."

As stated previously by the Atlantic Canada Transportation Commission, reduced costs for moving foods and products as well as quicker access to PEI will undoubtedly occur as a result of the construction of the fixed link. However, I am concerned that additional traffic by the trucking industry would put a greater burden on an already highly congested New Brunswick TransCanada highway. Furthermore, according to our survey, 44% of the people in my constituency indicated that they would travel more frequently to PEI if a fixed link was built. Considering what Greater Moncton has to offer both in terms of tourist attractions and shopping facilities, I have no doubt that Islanders would likewise travel more frequently to the mainland.

With recent cuts announced to VIA Rail for passenger service in Atlantic Canada and the near elimination of CN freight service in the Maritimes, I feel strongly that the Government needs to develop a comprehensive transportation strategy within which a TransCanada highway and a fixed link must be considered simultaneously. If the bridge is built in isolation from an integrated transportation network it will be a bridge that leads to a totally inadequate highway infrastructure. This would reduce the benefits of the bridge.

FISHERIES AND THE ENVIRONMENT

There is no question in my mind that the construction of a fixed link crossing in the Northumberland Strait will have at least a negative short term impact on the fishing industry and the environment. And finally, I add my voice to the many others who have previously and more adeptly outlined serious concerns for the environment and the fisheries. I am preoccupied by the irreparable damage a fixed link will have on the fishing industry. I am concerned for the livilihood of the fishermen, both from a human point of view as well as from an economic point of view. And I am concerned that the effects of the construction of a fixed link will irrevocably damage the biological and ecological ecosystems of the area. I fully support my collegue Beausejour MP Fernand Robichaud in his repeated calls for credible studies on stock alterations in the Strait. Outlined in its January letter to the Assessment Panel, the response of the Department of Fisheries and Oceans to the additional studies compiled by Public Works Canada underscores the ambiguous nature of studies to date; "DFO's major concerns focus on the continued uncertainties associated with attempts to link changes in the fisheries to changes in the biophysical environment as a result of the construction and operation of a bridge structure."

As indicated by Fernand Robichaud, in his presentation to this Panel in July of 1989 reduction of the fishing stock in the order of 15% to 20% during and following construction will only worsen the already fragile fishing industry in Southeastern New Brunswick. Furthermore, I am informed that important reductions in popular local species such as lobster, herring and especially scallops could have serious long term consequences on Moncton's economy. Not only will the Moncton area suffer from reduced spin off resulting from the loss of revenue to fishermen but Moncton's efforts to diversify as proposed in the 1989 Lavalin Report, in the area of sea products such as specialized warehousing, transportation, international marketing and research and product development will be seriously damaged. More specifically, I refer here, to the work currently being done at the Université de Moncton's Research Institute to develop new fish products for the international fishing market.

However, and on a more positive note, I am extremely pleased that the Maritime Fishermen's Union along with Fernand Robichaud, has been successful in convincing this Panel and subsequently the Federal Government to set up a mecanism by which a committee of industry will decide on appropriate compensation for area fishermen.
This fact does, however, prove the point. Otherwise, compensation would not be necessary.

Evidence as to the degree of harmful effects of the fixed link construction on fisheries and the environment can never be totally conclusive. This issue does raises great concern among the public. Our survey indicates that close to 50% of my constituents are concerned about the impact of construction on the fishing industry and the environment. Moreover, there are always contradictory and differing opinions among scientists working in the field. Nevertheless, this Panel has the obligation to assure fishermen and the general public that the experience of the 1950's construction of a causeway in the Strait of Canso and the subsequent damage to the fisheries stocks there, will not be repeated in the Northumberland Strait.

CLOSING REMARKS

Notwithstanding the concerns I have expressed throughout this presentation, I would like to reiterate my position in favour of a bridge. From an economic perspective, I feel that Moncton and the whole of the Southeast region have much to gain. With an direct investment of over $600 million in our own back yard, one cannot help but expect our economy to be bolstered in the short term.

However, the benefits to this region are, to date, completely speculative. And the back handed treatment I have received from the Minister of Public Works and his Department, to my repeated calls for a socio-economic impact study for the Southeast region is deplorable, a copy of my letter to the Minister is attached. To add insult to injury the most recent issue of "The Strait Facts" put out by Public Works Canada makes absolutely no reference to Moncton's or New Brunswick's involvement in the project. This serves to confirm my suspicions that perhaps the benefits of the bridge will only fall on one side.

I am also concerned that the construction of a bridge, undertaken in isolation and with no regard for the need of a comprehensive transportation system will, simplistically put, be a bridge that goes nowhere. A new TransCanada Highway and a fixed link must be considered simultaneously.

As the closest urban centre to the construction site on our side, Moncton will be undeniably implicated, directly and indirectly, in the process. The extent to which we will be involved and benefit is the outstanding question. And I am firmly committed to working closely with our neighbours in Beausejour, with the business community and with the Université to ensure that this project is as beneficial as possible for our region.

I thank you again for providing me the opportunity to speak to you. I am hopeful that my remarks have allowed you to better understand my constituent's concerns and I will look forward to your comments and final recommendations.

FIXED LINK CROSSING PROJECT BETWEEN NB AND PEI SURVEY CONDUCTED AMONG CONSTITUENTS OF THE FEDERAL RIDING OF MONCTON AS OF NOVEMBER, 1989.

FACT SHEET

General Remarks

The sampling for this survey is considered significant since more than 245 citizens voluntarily agreed to answer a total of 15 questions concerning the proposal to construct a fixed link crossing between NB and PEI. Surveys of this magnitude are therefore considered accurate 19 times out of 20 and within a 5% margin of error.

Verification of Sampling

In order to determine whether our respondents are representative of the demographic fabric of the Moncton Riding, a comparison was made between the results of the survey and selected characteristics indicated by the 1986 census of Statistics Canada. **The following results confirm in general that the sample is quite representative of the citizens of the Federal Moncton Riding.** Here are just a few examples of some of the results provided by our survey.

Category of Question	Variable Classification	Statistics Canada 1986	Survey Results Moncton (Dec.89)
Level of Education Completed	Elementary	26.7%	24.5%
Annual Family Income	$20,000-29,000	20.2%	24.8%
Social Status	Married or Common Law*	62.6%	73.7%
Language at Home	English*	72.1%	65.4%
Residence	Moncton	67.3%	59.2%
Gender of Respondents	Male	48.2%	48.5%

*** Please note that the categories used by Stats Can differ slightly than those selected in our survey.**

Survey Results

1. Awareness:

An extremely high percentage of citizens (98%) are aware of the existence of a proposal to construct a fixed link crossing between New Brunswick and Prince Edward Island.

2. Job Creation:

A total of 66.5% of respondents believe that the fixed link crossing will create jobs of benefit to the Greater Moncton area; 21% answered no while 11.8% don't know.

3 Environmental Impact:

There seems to be a clear consensus as to the environmental impact since 49% indicated their preoccupation compared to 36% who believe that the construction will have no bearing on the environment. (12% had no opinion on the subject)

4. Impact on Fishing Industry/Environment:

Concern over the impact of construction on the fishing industry is also significant according to 46.1% of those surveyed; 33.5% do not think activity in the strait will be harmful while 20.4% don't know.

5. Preference - Bridge/Tunnel:

A clear majority (64.5%) prefer the option of a bridge compared to 24.5% for a tunnel. Among reasons given for their preferences, 32.4% of the constituents are in favour because they consider their option as being safer. A total of 14.5% believes that their option has a less negative impact on the environment.

Women overwhelmingly prefer the option of a bridge by a margin of 69%. Men favour the tunnel option by a similar figure of 73%.

6. Frequency of Travel to PEI:

49.4% of those surveyed travel to PEI at least once or twice a year. Only 4.9% had never visited the Island. Reasons given for travelling to P.E.I. were tourism(71.4%), business(13.9) and to visit family and friends(11%). Other than for vacations, 24% of men travel to PEI for business reasons compared to 6% for women.

7. Changes in Frequency of Travel:

Respondents indicated by a margin of 49% that they do not foresee travelling to PEI more often as a result of construction, 43.9% believe that they would visit more often if a fixed link was built.

8. Political Support for the Project:

When asked if respondents believed the Mulroney Government would go ahead with the project, 58.4% answered **negatively** compared to 14.3% who believed it would go ahead. A total of 27.3% indicated they didn't know. Of the residents who expressed an opinion that the Mulroney Government would not proceed with the project, (58.4%) still strongly believe, by a margin of 59%, that Provincial government involvement for the fixed link project is desirable.

9. Political Involvement in the Project:

As to the Provincial Government's involvement in the project, 85% felt that it was necessary. Similarly, 86% felt that Moncton MP, George Rideout, had a role to play. When asked to indicate the type of role they felt he should take, slightly less than half (about 42%) had an opinion and answered as follows:

ROLE	DISTRIBUTION	
	Out of 42	Percentage (100%)
Put pressure on Government	11.3	26.9%
Create jobs for Moncton	7.3	17.3%
Respect wishes of People	6.5	15.3%
Promote Project	6.1	14.4%
Protect Environment	4.8	11.5%

65% of those who showed **pessimism** as to whether the project would go ahead are married.

Of the 85% or respondents favouring **provincial input** on the fixed link, 90% indicated that their member of Parliament should also get involved.

Even **those against** the construction of a fixed link crossing between NB and PEI (12.7%) felt that their Member of Parliament should get involved (77.4%).

10. Position on Construction of Fixed Link:

After having answered all of the questions, respondents were asked whether the fixed link crossing between NB and PEI should go ahead. A total of 68.6% indicated that they were in favour of its construction while 12.7% were opposed. A total of 14.3% were indifferent to the project of which 72% were women. The most popular reason given by constituents for favouring the fixed link crossing was that it would **save time** and therefore make the Island **more accessible** (47.0%)

Towards the Construction of a Fixed Link Crossing Between New Brunswick and Prince Edward Island

Brief Outline - Survey Results
Moncton Riding | November 1989

1. Awareness of the existence of a proposal to construct a fixed link crossing between NB and PEI

VALUE	FREQUENCY	PERCENT
yes	240	98%
no	5	2%
TOTAL	245	100%

2. Construction of a fixed link crossing - source of Job Creation for citizens of Greater Moncton.

VALUE	FREQUENCY	PERCENT
yes	163	66.5
no	53	21.6
don't know	29	11.8
TOTAL	245	100%

3. Concerned about the environmental impact of the proposed fixed link crossing.

VALUE	FREQUENCY	PERCENT
yes	120	49.0
no	88	35.9
don't know	37	15.1
TOTAL	245	100%

4. Construction of a fixed link crossing - harmful to the fishing industry and the environment.

VALUE	FREQUENCY	PERCENT
yes	113	46.1
no	82	33.5
don't know	50	20.4
TOTAL	245	100%

5. Prefer a bridge or a tunnel.

VALUE	FREQUENCY	PERCENT
bridge	158	64.5
tunnel	60	24.5
don't know	26	11
TOTAL	244	100%

6. Reasons why constituents favour either the option of a bridge or a tunnel.

VALUE	FREQUENCY	PERCENT
other reasons	81	33.6
safer	78	32.4
don't know	37	15.4
less negative impact on envir.	35	14.5
create more jobs during construction	9	3.7
less expensive	1	.4
TOTAL	241	100%

7. Number of trips to PEI.

VALUE	FREQUENCY	PERCENT
1 - 2/year	121	49.9
1 every 2-3 years	53	21.6
3+/year	49	20.0
other	12	4.9
never	10	4.1
TOTAL	245	100%

8. Reasons why respondents travel to PEI.

VALUE	FREQUENCY	PERCENT
tourism	175	71.4
business	34	13.9
visit family/friends	27	11.0
other	4	1.6
no response	5	2
TOTAL	245	100%

9. Changes in frequency of travel to PEI if fixed link was built.

VALUE	FREQUENCY	PERCENT
as often	120	49.0
more often	107	43.7
less often	7	2.9
don't know	11	4.5
TOTAL	245	100%

10 Will the Mulroney Government go ahead with the project?

VALUE	FREQUENCY	PERCENT
no	143	58.4
don't know	67	27.3
yes	35	14.3
TOTAL	245	100%

11. Provincial involvement in the project.

VALUE	FREQUENCY	PERCENT
yes	208	84.9
don't know	19	7.8
no	18	7.3
TOTAL	245	100%

12. Involvement of your local Member of Parliament.

VALUE	FREQUENCY	PERCENT
yes	210	85.7
no	19	7.8
don't know	16	6.5
TOTAL	245	100%

13. Should construction of a fixed link go ahead?

VALUE	FREQUENCY	PERCENT
yes	168	68.6
indifferent	35	14.3
against	31	12.7
don't know	11	4.5
TOTAL	245	100%

14. Reasons for their choices.

VALUE	FREQUENCY	PERCENT
save time	103	47.0
other reasons	56	25.6
create jobs	22	10
prefer ferry	20	9.1
harmful to environment and/or fisheries	10	4.6
sentimental reasons	3	1.4
less expensive than present ferry	3	1.4
too expensive to build	2	.9
TOTAL	219	100%

15. Role of your local MP - with an opinion other than "I don't know".

VALUE	FREQUENCY	PERCENT
lobby gov't	28	26.9
create jobs for Moncton	18	17.8
respect people's wishes	16	15.8
promote project	15	14.8
secure funding	12	11.8
protect environment	15	14.8
TOTAL	104	100%

GEORGE S RIDEOUT M.P. Député
MONCTON

Ottawa
462 West Block
K1A 0A6
Tel (613) 992 8072
Fax (613) 992 8083

August 30, 1989

The Honourable Elmer MacKay
Minister of Public Works
House of Commons
Room 507
Confederation Building
Ottawa, ONT
KlA 0A6

Dear Mr. MacKay,

As a result of a press release issued on August 28, 1989 by the Environmental Assessment Panel reviewing the Northumberland Strait crossing project, I wish to inform you that I fully support its request for additional socio-economic analysis on communities to be affected within our region.

After consulting with several leaders of the Greater Moncton business and industrial community, I share their concern as to the lack of information regarding short and long-term employment opportunities during and after construction. Furthermore, the new release made reference to the relocation of Marine Atlantic's Head Office from Moncton. Needless to say, this should be reviewed along with any other possible job losses. If Marine Atlantic were to relocate, it would mean a loss of a further 150 high paying jobs from the region.

As you are aware, the closure of the Moncton CN Shops in 1988 has meant the end of an economic era for the region. Nevertheless, we have moved towards building a strong partnership between the public and private sectors in order to assure a bright economic future for the Greater Moncton area. A joint Federal/Provincial/Municipal initiative has resulted in the creation of an economic development strategy aimed at diversifying the region's economy. Any impact study of the Moncton region must take into consid[illegible]on the strategy recommendation that we diversify by building on the s[illegible]ths of our agricultural and sea product base as well as the entrep[illegible]urial spirit presently existing. It is, therefore, imperative that the short [illegible] long-term economic benefits resulting from construction of a fixed link serve to enhance our economic development strategy rather than impede it.

I remain optimistic that you and your Department will accept our invitation to work co-operatively in assuring that the proposed fixed link crossing will assist the Greater Moncton area in achieving economic prosperity being consulted on the terms of reference for any economic impact study for the southeast New Brunswick region. Additionally, we would like to have any reports and studies made available to us when they are completed.

Thank you for your anticipated co-operation.

Yours very truly,

George Rideout, MP
(Moncton)

COMMISSION ECONOMIQUE DU SUD-EST INC.
SOUTH EAST ECONOMIC COMMISSION INC.

Presentation to the Environmental Assessment Panel reviewing the Bridge Concept Assessment

presented by

Raymond LeBlanc, Industrial Commissioner

March 15, 1990

C.P. (Box) 578 RUE MAIN ST. SHEDIAC, N.-B. E0A 3G0 (506) 532-6601
(SHEDIAC, CAP-PELE, PORT ELGIN, SACKVILLE, DORCHESTER, SAINT-JOSEPH)

Mr. Chairman, I wish to sincerely thank you and the other members of your panel for the opportunity to submit some views on the proposed construction of a bridge as well as brief reflections pertinent to our visit to Ile de Ré in France.

As Industrial Commissioner, I have as primary mandate, to oversee economic development growth, foster entrepreneurship spirit and develop to a maximum all of the industrial sectors.   Also, it is the responsibility of the commission to welcome and promote the establishment of new developments especially in an area such as ours, that is one that is by far too dependant on the fishing industry which has become very unstable over the last few years.

We should also mention that one of our main concerns is the safeguard of existing jobs and the creation of new jobs. Our area is very dependant on seasonal jobs, that is why we foresee the construction of such a mega bridge as a unique opportunity for economic development, even an anchor to the prosperity of not only the South East region, but all of New Brunswick and its neighbouring provinces.

Knowing the area and its people very well, I am convinced that the great majority supports and wishes the arrival and realization of such a mega project. However, some groups, namely the fishermen and the employees of Marine Atlantic, have a right to be concerned by the possibility of loosing revenues and their jobs.

The authorities of this mega project should therefore respect entirely every environmental aspect and the protection of the citizens. It would only be fair and necessary to implement technical and financial compensation, invest in the modernization of the sites, and take positive action in favor of the people or community hurt or wounded in their heritage, their jobs or even having to relocate. It will also be necessary to anticipate special compensation for the loss of their livelyhood for the fishermen during the construction of the bridge. You will also have to respect the loss of jobs particularly for the people afffected. We recommend that fishermen and workers be sincerely consulted during the preparation of a compensation program so that justice be equally served.

As far as we, of the South East Economic Commission, are concerned, we are confident that the project can become reality and we respect the outcome of the various studies since they will ensure that the negative effects are minimal.

We hope that everyone of us will be ready to reap from the economic outcome; that is in construction material, services and accommodations. We also wish that our youth of 18 to 24, as well as other unemployed people be given the opportunity to seek serious and strong training similar to the one received by the people of Ile de Ré prior to the construction of their bridge. We have an excellent work force who wishes to work. The contractors hired local people first.

That is why in a project of such magnitude, we recognize the importance to give each sector of activity and the whole population from the South East the opportunity to participate fully to each phase of the construction.

We are also convinced that the tourism industry will florish for the people of Prince Edward Island, Nova Scotia and particulary for our region and our whole province. According to the comments heard, we can expect to greet countless numbers of technician and engineers coming from every country of the world to oversee the construction and admire the erection of a bridge which will be the longest in the world. Here we did not even take into consideration the other tourists interested to see the project. These people will have to be welcomed. They will need to be fed, to sleep, be taxied, rent cars and without a doubt purchase local souvenirs. Will we be ready?

It is forecasted that once the construction is completed, we will experience, in our area alone, a 25% increase in the number of tourists.

It goes without saying that to welcome all those visitors and facilitate all activities related to the hauling of the material for the construction, we will need adequate highways. We are delighted with the initiative of our government to rebuild our Trans Canada Highway.

With your permission, Mr. Chairman, I could briefly elaborate on my participation, last January, to a mission to France to see the bridge that links l'Ile de Ré to Larochelle.

Visit to Ile de Ré Bridge

January 14 - 19, 1990

It has been a privilege to be a member of a mission to visit the Ile de Ré Bridge linking the island to Larochelle since 1986. I was very impressed by the entire structure of the bridge and the economic impact both for the people of Ile de Ré, the community of Larochelle and the surrounding areas.

During our visit we had the chance to meet several local people such as fishermen, local government and business people and others to learn that the Ile de Re bridge is not an ordinary bridge. First we saw from a distance a nice structured bridge. We had the opportunity to walk around, go over and visit inside its structure where there is a small walkway throughout the length of the bridge. We discovered a big pipe to haul water from Larochelle to the island and we could see eight big cables inside the structure so that they will not have to resist to corrosion and that they be easy to access for repairs if necessary. There is a big rail suspended from the ceiling to transport heavy equipment if ever needed.

We could appreciate that the Ile de Ré Bridge is not an ordinary bridge. The contractors adapted new ways of building such a bridge. They told us that it was built by sections and is also equipped to resist to vibrations, specially in case of an earthquake.

Brief History

France had an island and a continent. The linking was a ferry system. On the island, they have two categories of people: those who work and those who rest. Those resting were the ones opposing the bridge. They were also people on vacation, people, not residents, coming from elsewhere.

Those who work were the people raising oysters, the fishermen and the industries related with the resources of the sea. They wanted a bridge based on several reasons.

There were six ferries linking the continent to the island. Each one was about 20 years old. They had a crew of about 60 people, highly unionized crew and very difficult to manage. The rehabilitation of those old ferry boats would have cost about the same price as the price of the bridge. They recognized that rehabilitating or rebuilding a new fleet of ferries every 20 years would be more costly because after 20 years the bridge will still be in use.

So the local department in front of those facts and economic and material realities decided without any assistance from the central government (Paris) to launch the project and the construction of the bridge.

We have been told that the ferry services started at 6:00 a.m. in the morning and terminated at 11:00 p.m. at night. Very often, they were acknowledging delays due to mechanical problems, bad weather and other reasons.

During the medium of the heat and cold season there was a large quantity of oysters which were coming from the island shore that had to wait on the wharf and started to be spoiled due to the lack of adequate transportation. The fishermen had absolutely the same problem. It became the main topic of the island to develop a permanent transportation linking to transport adequately the resources produced on the island.

They also told us that they had problems with the youth population attending school on the continent (Larochelle area) who very often missed the ferry. So they were hanging around or cruising the streets of Larochelle due to the lack of transportation to get back home and the drug situation became worst and tripled compared with the youths of the continent. So you had an economic and social necessity to decide in building a bridge.

They reminded us of the importance of having a permanent access specially the days of rough seas, when the ferries could not cross or helicopters could not leave the ground. It happened very often that emergencies could not reach the continent even if the situation was covering only a few days (approximately 8 to 12 days). It was enough to have casualties resulting from a lack of access to or from the island either by helicopter or by sea transportation.

Cost of the bridge

The bridge alone cost $360 million of new francs. If you include the acquisition of the land, access construction and all the auxiliary equipment, they reached $550 million of French francs in total for the bridge.

(We have been told that the regional management decided to freeze the price of land just to prevent the speculation on land acquisition and reselling.)

Tariff to cross the bridge

There is a specific toll applied to the islanders. They pay a special tariff to cross the bridge and the people involved in the sea products (oysters producers and the fishermen) have a more preferential tariff, the cost amounts to almost nothing to just use the bridge.

The increase in cost seems to be almost negligeable because the fact of the region. The local production has increased largely the gross domestic products. In real term, due to the impact of the new facility on the local economy and any accrued cost is really compensated by the increasing gross domestic products.

People

In regards to the youth population, they leave the island to work in the continent (Larochelle region) because life is more agreeable. Because of the bridge, now they can go back to the island every night even after a late session, or after their participation or sport practice, cultural activities, etc. They also notice a large outflow of population has stopped. Now they are appreciating new businesses development from that specific situation.

Technical aspect

I would like to touch a little the technical aspect even though I am not a technician. I understood that the erection of the Ile de Ré bridge did not give way to any sort of major problem either in the field of construction, on the bridge foundation or in the composition of the concrete. In general, they had a very good soil adequate for the construction. The bottom sea or the ecological constitution is a calcareous sediment soil.

A very specific process had been used to build that bridge by using an offshore platform. We have been told that using such an offshore platform has been the key of success of the erection of that bridge because each piling rested on four incline piles of an angle of 20° horizontal and that would not have been possible without using such an offshore platform.

That special platform has been designed to incorporate a driller which is a specific driller to drill through big tubes and to push the pile down the rough bed in a 20° without any shifting direction. There is no deviation from the fixed axles. The new designed system permitted the drill to be completely straight and without any deviation in the driving of the bars.

The technical design that has been specifically put in by Bouygnes consisted of four piles driven obliquely with a 20° supporting a basic slab. It has been the first time that steeled piles to support a bridge had been extended more than 12°.

As far as the deck of the bridge itself is concerned there was a problem. It was to manufacturing the segments used for building the bridge which had to be precast with accuracy. The bridge has been built by segments where each one had its own place which had to be cast according the precise technique.

It has also been mentioned that the contractor used a launching guider that had to be a very powerful tool to be able to put a segment after the pile.

The economic solution would have been to build a straight bridge as they told us, but it is a bridge with a curve costing much more. Why? To avoid any possible collision by approaching ships. After researches to find where the depth was more minimal, they made that curve. So any arriving ship would probably be grounded on the bottom of the sea before being able to hit the bridge.

In case that an arriving ship succeeded in reaching the bridge, the bridge is such design to stand a frontage collision of 2000 ton impact. And the bridge being made by sections, only a small portion of the whole bridge would be affected by the impact of the collision.

Duration of the construction

There has been a respect of the duration of the construction. It was a 20 months contract and it was completed 5 weeks in advance with no additional cost, and special difficulties and the government people were very much satisfied.

It has also been mentioned that special precautions have been taken where the erosion is concerned. Some people were concerned and afraid that the bridge might somehow change the course of the current, erosion the land, destroy the environment, etc. That is why the length of the bridge is so significant. Their interest was to avoid any kind of possible problems regarding this issue of erosion.

They were also concerned about the life and potential destruction of fisheries. There is a lot of fisheries activities in that area. Larochelle is the fourth largest fishing wharf of France. Many had concerns before the erection of the bridge. It appears that there was no change at all to the environment, the current of the water, fishing. In the contrary, the mussels and oysters producers are renting for 2, 5 or 10 years period the bridge support to spring up their products.

A "premiere"

The bridge of Ile de Ré has presented two "Premières". The first has been to use inclined piles at a 20 degree and 2 meters of diameter.

The second has been the use of boeing design. For the first time, an aircraft component was used in a construction job. It is the same component that they are using in Cap Canaveral to transport the rockets.

TOUR OF EUROTUNNEL

The day after our visit to Ile de Ré and Larochelle, we were invited to the Channel tunnel site at Sangatte near Calais.

At Calais it was a big surprise for each member of the delegation and we did not learn a lot about the pros and cons of a tunnel. We toured the surrounding areas and flew over the site which gave us a better appreciation of the mess. The environmental impact of a tunnel is certainly something we had never thought about.

Digging a long tunnel gives way, necessarily to a considerable quantity of dump. We learned that one of the big questions from them was where to store for ever all the materials coming from the seabed.

In Sangatte, the choice has been to fill an historically beautiful little valley, very rare to find in the area. They bought 55 hectares of land from the farmers and even people had to be expropriated. The entire valley is to be filled by the millions of tons of wet crushed rocks, chalk and dirt being hauled out of the tunnel and dumped after being mixed with a large quantity of fresh water in order to carry it towards the surface and dumped it into lagoons. The entire valley is to be filled with the materials coming from the tunnel digging. It is hard to imagine how the entire landscape is being changed. People from Calais and surrounding areas are very much upset.

Despite the water recycling, there are important needs in fresh water, which might disturb the distribution to the villagers and even disturb the water level in the agricultural fields.

We have noticed the mud which has been spilled to the sea (which is the case in Great Britain) it has to be dumped near the coast which modifies the beaches, disturbs at the same time the fishing, and the aquaculture. In December a big rain storm occured during which the streets and the beaches of Sangatte were filled by that white slippery chalk sand. They had to hire big trucks to pump that chalky mud.

We have been told that in Sangatte it will take between 5 to 7 years for the mud in the lagoon to dry completely. They had to increase the retaining dam by several meters because the volume of mud to be stored. It was very difficult to assess initially.

The water from the mud goes partially into the deep soil. That is why the sea water cannot be used for the system.

A long tunnel needs a lot of concrete. The contractor likes to get the material as near as possible of the tunnel ends. In Calais area, they had to dig new large ponds to reclaim prehistorical gravel in the deep soil or quarries. Dust, noise, trucks carrying aggregates on the local roads are disturbing the villagers.

The Channel Tunnel, which will be a 50 km tunnel, is to carry people and vehicles on subaqueous trains. The contractors met problems since they began digging in January 1988. The opening date, now scheduled for June 1993, already has been postponed once. Delays and inflation have added $1.6 billion to the construction costs, now estimated at $11.2 billion and rising (no one seems sure by how much). Only 30% of the bridge is completed. We should remember neither governments wanted to build the tunnel with taxpayers' money so they invited private bids in 1985. The winner chosen in 1986 is Eurotunnel.

Money remains the biggest problem at the present time. Eurotunnel predicted it could build the entire project for about $7.7 billion, but by late 1989, the cost estimated had risen to $11.2 billion.

Some of the reasons are:

a. the construction costs have inflated at 15 percent per year instead of the 4.5 forecast;

b. to dig the tunnels and build the terminal ran into unexpected underground fissures that required reinforcement and put the digging on the English side five months behind schedule;

c. the cost increases and they had a strike by the employees;

d. Eurotunnel authorities might also have underestimated the cost side of the project.

During our stay in Sangatte and Calais, we have been told that France and Britain have considered building an undersea link at least two dozen times dating back to the early 1800's. During the talking stages and the different discussions between the environment groups, people were very much concerned about the crossing. The Dover and Folkestone ferry operators complained on their side that the tunnel would put them out of business. It is still primordial to try to protect people and their environment as well as to largely provide compensation to the Maritime vocation of the Calais area.

People had studied the pros and cons of the tunnel and the last decision has been to build a rail tunnel to avoid pollution problems.

During our conversation with the authorities and the local people, we can appreciate better why a tunnel is not the solution for a fixed link between Cape Tormentine and Borden. Beside the water problem from the digging there are other reasons:

1. It is impossible to predict a fix cost in the building of a tunnel;

2. It is an investment of billions of dollars;

3. Major problem in the ventilation of the tunnel and the effect of pollution on the environment each end of the tunnel;

4. A tunnel for vehicles (cars, trucks, van, trailers) causes numerous accidents and mortalities like the one in Japan;

5. People just panic by claustrophobia.

Advantages of having a bridge

- Professionals and business people have access much faster and more regularly with the continent;

- Less pollution with a bridge;

- Service sector much more rapid;

- The professional fishermen, not counting the convenience of having a bridge for their private life, find in their professional life an element of a big time saving in the transportation of their product to sell it in France. The transportation by boat was an enormous lost of time. Time is money as they told us;

- Easier to respect and meet the estimated costs.

N.B. We have been told that now we would not be able to find somebody against the bridge.

Firm recommendation

It has been strongly recommended that the fishermen should have a firm commitment from the government with the contractors before contracting any dealings concerning the compensation of loss of fishing during the construction and/or after the construction.

Raymond LeBlanc, Industrial Commissioner
March 1990

COMMISSION ECONOMIQUE DU SUD-EST INC.
SOUTH EAST ECONOMIC COMMISSION INC.

Présentation à la Commission d'évaluation environnementale concernant l'Evaluation du projet de construction d'un pont

présenté par
Raymond LeBlanc, Commissaire industriel

Le 15 mars 1990

C.P. (Box) 578 RUE MAIN ST. SHEDIAC, N.-B. E0A 3G0 (506) 532-6601
(SHEDIAC, CAP-PELE, PORT ELGIN, SACKVILLE, DORCHESTER, SAINT-JOSEPH

M. le Président, je tiens à vous remercier sincèrement, ainsi que les membres de votre panel, pour cette opportunité de vous présenter quelques opinions sur la proposition de la construction d'un pont ainsi que quelques brèves réflexions à la suite d'une visite au pont de l'Ile de Ré en France.

A titre de Commissaire industriel, j'ai comme premier mandat de voir à la croissance du développement économique, de mousser l'esprit entrepreneurship, de développer à son maximum tout le secteur industriel. Egalement c'est le devoir de notre commission d'accueillir et d'encourager la venue de nouveaux développements surtout dans une région comme la nôtre beaucoup trop dépendante d'une industrie de pêche devenue très chancelante au cours des récentes années.

Il faut aussi souligner que l'une de nos principales préoccupations est bien celle de la sauvegarde des emplois existants et voir à la création de nouveaux emplois. Notre région est très dépendante d'emplois saisonniers, c'est pourquoi nous percevons la construction d'un pont d'une telle envergure comme une opportunité unique en développement économique et voire même une planche de salut à la prospérité non seulement du Sud-Est mais de tout le Nouveau-Brunswick et des provinces avoisinantes.

Connaissant très bien la région et les gens qui l'habitent, je suis convaincu que la grande majorité supporte et souhaite l'arrivée et la réalisation de ce mega-projet. Par contre, certains groupes, en particulier nos pêcheurs et les employés de Marine Atlantique, ont raison d'être très concernés par la possibilité de perte de revenus ou d'emplois.

Les autorités de ce mega-projet se devraient donc de respecter entièrement tout l'aspect de l'environnement et la protection des citoyens. Il sera tout à fait juste et nécessaire de mettre en place des compensations techniques et financières, des investissements de modernisation des lieux, des actions positives en faveur des personnes ou des collectivités blessées ou lésées dans leur patrimoine, leur emploi ou en cas de déplacements nécessaires pour certaines gens. Il faudra également prévoir une compensation spéciale pour la perte de pêche par les pêcheurs pendant et après la construction du pont. Il s'agira également de respecter la perte d'emplois en particulier pour les employés affectés. Nous recommandons que ces derniers (pêcheurs et ouvriers) soient sincèrement consultés lors de la formulation de ce programme de compensation afin que justice soit faite de part et d'autre.

Quant à nous de la Commission Economique du Sud-Est nous sommes confiants envers la réalisation du projet et nous respectons les conclusions des diverses études puisqu'elles nous rassurent que les effets négatifs sur l'environnement sont minimes.

Nous souhaitons que tous nous soyons prêts à bénéficier des retombés économiques en fourniture de matériaux de construction, de services et d'accommodations. Nous souhaitons également que nos jeunes de 18 à 24 ans ainsi que les autres en chômage auront l'opportunité de suivre un entraînement aussi solide et sérieux que les gens de l'Ile de Ré ont reçu avant le début de la construction de leur pont. Nous avons une excellente main d'oeuvre qui veut travailler. Les contracteurs ont embauché une main d'oeuvre local en premier.

C'est pourquoi dans un projet d'une telle envergure nous reconnaissons l'i[illegible] de donner à tous les secteurs d'activités et de la population de notre région du sud-est l'occasion de participer pleinement à chaque étape du projet de construction.

Nous sommes également persuadés que l'industrie du tourisme va devenir très florissante autant pour les gens de l'Ile-du-Prince-Edouard, de la Nouvelle-Ecosse et en particulier pour notre région et toute notre province. Selon des commentaires entendus nous pouvons nous attendre de recevoir un nombre incalculable de techniciens et d'ingénieurs en provenance de tous les pays du monde pour y voir la construction et en admirer la réalisation d'un pont qui s'avérera le plus long du monde. Ici nous ne tenons pas compte de tous les autres touristes intéressés à voir ce projet. Tous ces gens devront être accueillis. Ils auront besoin d'être nourris, de dormir, des moyens de transport, de se louer des autos et sans doute se procurer des cadeaux souvenirs de chez-nous. Serons-nous prêts?

Il est estimé également qu'après la construction terminée, nous connaîtrons une augmentation, dans notre région seulement, de 25 pour cent de touristes.

Il est entendu que pour accueillir tous ces visiteurs, pour faciliter les activités quant au transport nécessaire à la construction, nous aurons besoin de routes d'accès adéquates. Nous nous réjouissons de l'initiative de notre gouvernement de reconstruire notre route transcanadienne attendue depuis longtemps.

Si vous me le permettez, M. le Président, je pourrais vous transmettre quelques réflexions suite à ma participation à une mission en France, en janvier dernier, pour voir le pont qui relie l'Ile de Ré à Larochelle.

Visite à l’Ile de Ré et Larochelle

janvier le 14 - 19, 1990

En janvier dernier j’ai eu l’opportunité et le privilège de participer à une mission spéciale en France en vue de visiter un pont semblable à celui qui est proposé pour relier le Nouveau-Brunswick à l’Ile-du-Prince-Edouard. A la même occasion nous nous sommes rendus sur le site où sont déchargés les déblais provenant du tunnel sous la Manche à Sangatte région de Calais.

Au cours de ce voyage, nous avons eu l’occasion de nous entretenir avec les représentants du gouvernement local, des pêcheurs, des gens en affaires ainsi que des citoyens de l’Ile de Ré et de la communauté de Larochelle. Nous avons donc eu l’opportunité de discuter d’inquiétudes ou de problèmes reliés au projet. Nous avons également abordé les questions de pêches, du tourisme, du transport, de même que divers autres sujets à caractère socio-économique.

Le pont qui relie l’Ile de Ré et Larochelle est une très belle réalisation et l’esthétique est tout à fait plaisante. Cette imposante construction quand on la voit dans son ensemble n’a donné lieu à aucune difficulté majeure. Aucun incident de réalisation d’aucune nature, qu’il s’agisse de problèmes de fondation et de géologie du sous sol, qu’il s’agisse de problème d’adaptation à l’égard de la présence de la mer et du mauvais temps ou qu’il s’agisse de la réalisation des bétons et de tout ce qu'il y a concouru à la réalisation de cet ouvrage. Tout s'est passé sans incident.

Sur la plupart des éléments de construction, nous ont-ils dit, cette construction au fond se présentait dans des conditions les plus simples parce que la région est pourvue d'une bonne fondation, d'un sol plein de calcaire adéquat pour la construction.

Il y avait sans doute le problème de la construction en mer mais le contracteur a résolu très élégamment ce problème en utilisant une flotte pétrolière lui permettant ainsi de se tenir au-dessus du niveau de la mer et d'être à la fois à l'abri de la houle et de tout les mouvements de la mer. L'intervention de cette plate-forme a évidemment été l'un des éléments majeurs de succès en raison que chaque pile est fondée sur quatre pieux inclinés verticalement à 20°.

Tout le problème résidait sur la préfabrication, ce qui demandait énormément de soin et de précision parce que chaque poussoir a sa forme propre et doit donc être coulé dans un moule aménagé à cet effet. La bonne continuité du pont a résulté d'une très large part de la précision que l'entreprise fut en mesure d'apporter dans la préparation des poussoirs.

On nous informa également qu'une autre exigence fut un élément tout à fait fondamental dans le succès de l'opération. Il s'agit de la poutre de lancement. Cette poutre de lancement a permis de poser les poussoirs deux à deux symétriquement par rapport à chaque pile et qui prend appui sur les piles alors même qu'elles viennent d'être terminées ce qui évidemment suppose une très grande précision.

Problèmes d'environnement

Je comprends parfaitement bien les inquiétudes de diverses personnes quant à la construction d'un lien fixe sur le détroit de Northumberland. Il en fut de même pour ceux de l'Ile de Ré et de la région de Larochelle. Nous avons tous droit à nous poser des questions et s'assurer que l'environnement ne sera pas détruit.

Avant le début de la construction certaines personnes avaient dit: "vous allez abîmer la paix de l'île, abîmer la vie des gens par l'arrivée de nombreux touristes, etc.,". Selon leur dire, ils constatent que non seulement il n'y a rien arrivé mais que c'est un lieu de fréquentation privilégié. On y a construit un excellent restaurant au environ du pont lequel attire beaucoup de monde seulement pour voir le pont. Au point de vue des moyens d'accès, des entrées du pont, non seulement que ce secteur ne fut pas abîmé mais il s'est trouvé grandement embelli par une structure qu'ils considèrent un ouvrage d'or lequel mérite bien ce nom.

Un des problèmes qui s'est posé au moment des études avait trait au risque de voir l'implantation d'un désordre le long de la côte. Désordre d'érosion, de modification des courants marins dû à des courants très forts dans cette région à certaines heures de marées. La raison est que entre le continent et l'Ile de Ré, en particulier du côté sud, les couloirs marins sont étroits et la variation du niveau de la mer entraîne des courants très violents. Ils avaient donc raison de craindre qu'il se produise des phénomènes d'érosion ou des dégradations des côtes qui auraient été désastreux à plusieurs points de vue.

Depuis ce temps on nous a rassuré qu'il ne s'est rien passé et à la vérité des précautions prises pour ne pas modifier la vitalité des courants il ont choisi de construire l'avant digue très courte à l'entrée du pont. Il aurait été plus économique, nous a-t'on dit, de poursuivre de 600 à 700 mètres de long. La raison principale est que la profondeur de l'eau était faible et il aurait été moins coûteux de faire du remblais et de poser le pont sur ce remblais que de le poser sur des poutres. On aurait à ce moment-là rétréci le passage des eaux et les calcules ont montré que les phénomènes d'érosion pouvaient se produire. Donc ils ont pris énormément de précautions pour que l'implantation et de l'ouvrage et la réalisation du pont ne modifie pas l'équilibre général de la terre et des courants.

En ce qui concerne la vie de la faune marine, il y a une vie marine très intense. On y trouve de la pisciculture, l'aquaculture et une activité intense de pêche très importante. Ils croyaient fermement que pour des causes imprévisibles cette vie marine aurait été modifiée. En définitive, ils affirment qu'il en fut rien de tout cela. La faune marine s'est très bien adaptée au point que les piles du pont sont louées aux pisciculteurs. Ces dernières servent de pieux aux huitres et aux moules comparables aux pieux que l'on utilise dans les zones où les moules sont élevés. Par conséquent, ils ont observé aucune espèce de modification de la vie sous-marine à quelques égards que ce soit.

Bref historique

Je me permets de vous présenter un bref historique de la situation.

D'abord il y avait avant la construction du pont une île et un continent et ils avaient des petits traversiers. On nous a présenté les gens de l'île comme étant de deux catégories: ceux qui travaillent et ceux qui se foutent de rien. Ces derniers ne voulaient pas de pont. Ils étaient des vacanciers, des gens qui voulaient relaxer et même pas originaires de l'Ile de Ré.

Ceux qui travaillent on les a identifié comme étant des pisciculteurs, des pêcheurs et tous les autres comme faisant partie en particulier de l’industrie reliée à la mer. Ces derniers étaient plus particulièrement intéressés à un lien fixe pour multiples raisons.

En premier on nous signala que les bacs (petits traversiers) débutent leurs opérations à 6h00 et terminent à 23h00. Au cours des périodes limites de température, c’est-à-dire février et mars, septembre et octobre quand il fait des températures mi-douces, mi-fraîches, les dizaines de tonnes d’huîtres en provenance de l’Ile qui attendent sur les débarcadères perdent de leur qualité en attente de traversiers. Il en fut de même pour le poisson. Donc, ils considéraient très important pour l’économie de l’Ile d’amener une circulation permanente vers le continent (la France).

Un autre point qui fut soulevé fut celui des gens de l’Ile qui fréquentaient les écoles de Larochelle, ou sur le continent, rataient souvent le traversier. Alors ils traînaient dans les rues de Larochelle et le taux de drogués a été multiplié par trois en comparaison de ceux du continent.

Il faut également ajouter qu’ils ont mentionné qu’aux jours de tempêtes les bacs ne circulaient pas, les hélicoptères ne pouvaient prendre l’air, il y eut des femmes en couche qui sont mortes. Il y eu de nombreuses personnes qui sont également mortes en cas d'urgence par défaut de lien adéquat.

Donc, pour eux, ils considéraient qu'il y avait des besoins économiques et sociaux de créer un pont.

Avant l'arrivée du pont il y avait six bacs qui reliaient le continent et l'Ile de Ré. Ils avaient une moyenne d'âge de 20 ans d'usure. Ils employaient 60 personnes - un personnel syndiqué et très difficile à conduire. Les bacs de 20 ans remis en état auraient coûté le même prix que le pont. Le coût de reconstruire ou de renouveler les bacs après 20 ans seraient plus coûteux puisque le pont serait encore en usage après ces 20 ans. Donc c'est à la suite de ces considérations l'agence gouvernementale local (le département) devant le fait des réalités économiques et matérielles à décidé sans l'aide de l'état (le gouvernement central de Paris) de lancer le projet et de construire le pont.

Coût du pont

Le pont tout seul, uniquement l'ouvrage, a coûté 300 millions de nouveaux francs. Les acquisitions du terrains, les aménagements de la tête du pont (c'est-à-dire les entrées où l'on paie le frais de passage sur le pont) a coûté au total 550 millions de francs y compris tout l'équipement.

Le pont a présentement deux voies. En réalité, il a trois voies puisque pour des raisons écologiques ils ont voulu laisser des passages pour piétons et bicyclettes. Dans quelques années ils s'attendent de l'ouvrir à trois voies pour véhicules et diminuer celle des piétons.

Afin d'éviter l'envahissement et la spéculation de l'Ile, le Consul Général avait gelé tous les terrains.

Le pont est à péage. Les gens de l'Ile ont un tarif préférentiel et ceux qui transportent les produits de la pêche ont encore un tarif dérisoire. On nous informa qu'à l'heure actuelle les prévisions de financement par amortissement au péage dépassent les prévisions puisque ce lien fixe a eu un impact important. Ils ont connu une augmentation des produits de la mer et autres activités.

Ils se réjouissent également de la diminution du taux de la délinquance juvénile. Avant le pont les jeunes de l'Ile s'expatriaient pour trouver du travail. Depuis ces dernières années ils ont connu de nouvelles industries et de nouveaux commerces s'établir sur l'Ile. Comme certains nous ont dit: "On a enrichi notre Ile".

Aspect technique

Je me permets de souligner brièvement l'aspect technique bien que je ne sois pas un technicien et que mes connaissances sont très limitées. Nous avons eu l'opportunité de visionner un vidéo sur la construction même du pont accompagné de commentaires par des personnes compétentes en la matière.

Ils ont utilisé une toute nouvelle technique. L'habileté du contracteur fut sans contredit de construire des piles sur des tabourets c'est-à-dire des pieux inclinés de 20° sur lesquels reposent le tablier du pont.

On nous a mentionné que les américains ne s'étaient jamais aventurés au-delà de 12° d'inclinaison et ce fut ainsi une première mondiale. Le tout fut réussi à partir d'une plate-forme pétrolière qui se hissait sur quatre pattes. De plus, ils ont utilisé une foreuse avec une adaptation spéciale qui permettait de forer sans qu'il y ait modification sur la couche rocheuse.

Il y eut trois grandes étapes ou ateliers de fabrication. Une plate-forme qui forêt - une plate-forme qui coulait les piles et un grand lanceur qui posait les tabliers. Le contractant a appliqué à la construction du pont la technique d'un autre pont, nous a-t'on dit. La construction du pont a été faite par un principe dit "fléau" qui comportait de parts et d'autres deux poussoirs qu'on assemblait par des câbles jusqu'à obtenir une portée complète. On nous indiqua lors de la visite à l'intérieur de qu'il y a des câbles que l'on ne voit pas dans la partie du haut et les gros câbles chaque côté de la passerelle de l'intérieur que l'on a pu voir.

On nous informa également que ce fut la première fois au monde qu'un lanceur a été monté avec des trains de "boeings" et en mesure de rouler. Ce fut le même système utilisé au Cap Canaveral pour transporter les fusées vers la rampe de lancement.

Le pont est divisé en six parties avec des articulations qui font que s'il y a un choc de bateau par coalition ou tout autre objet flottant ainsi une seule section du pont serait affectée sans que tout le pont le soit.

La solution économique aurait été de construire un pont droit. On a choisi de construire un pont avec une courbe dont le coût fut plus élevé. Pourquoi? La raison principale fut d'éviter au maximum la possibilité de chocs de bateau sur les piliers du pont. Ils ont recherché l'endroit où les fonds marins remontaient le plus. Là ils ont placé la courbe du pont de manière à ce que les bateaux s'envasent et s'échouent avant de toucher le pont. On se rappellera qu'il y a de grands débarcadères avec des pétroliers soviétiques qui viennent chercher du blé et autres.

Si par contre au hasard un bateau touchait accidentellement l'un des piliers du pont, ce dernier sera en mesure de supporter un choc frontal de 2000 tonnes.

EUROTUNNEL

Le lendemain de notre visite du pont de l'Ile de Ré et de Larochelle, nous avons été invités à nous rendre au site où sont déchargés les déblais provenant sous la Manche. Nous nous sommes donc rendus à Sangatte, région adjacente à Calais.

Rendus sur les lieux, ce fut l'une des plus grandes surprises pour chacun des membres de la délégation. Nous avons visité la région par terre et par air ce qui nous a permis d'apprécier davantage les dégâts.

La construction d'un tunnel a un tel impact sur l'environnement que nul parmi le groupe n'aurait pu l'imaginer. Cette tournée à Sangatte nous a permis de connaître davantage les pour et les contre d'un tunnel.

Il est entendu qu'un grand tunnel produit, par définition un volume considérable de déblais: C'est évident mais beaucoup de gens sont portés à l'oublier tel que nous l'avons constaté. Où les mettre? Il faut les accumuler quelque part pour toujours tout en changeant l'environnement naturel. A Sangatte, on a choisi de recouvrir un beau vallon historique rare dans la région. Ils ont acheté 55 hectares de terrains agricoles où l'on a même expatrié des gens. Présentement ils sont a remplir cette vallée de millions de tonnes de pierres concassées, de pâte (boue) de craie et autres déchets. Ils ont adapté une technique de creusement très rapide - favorable aux coûts - pour le broyage des déblais lors du creusement lesquels sont mélangés immédiatement avec une grande quantité d'eau douce pour leur transport à la surface et vers le lieu de déchargement.

Malgré les recyclages, il leur faut des ressources importantes en eau douce, qui peuvent perturber le service des habitants, et les besoins de l'agriculture s'il n'y est pas pris garde à temps.

La boue obtenue ne peut être déposée que tout près des débouchés du tunnel à la surface, ce qui n'est pas forcément le meilleur endroit. Si le dépôt se fait en mer (cas de l'Angleterre), il faut confiner ce dépôt près de la côte, ce qui modifie la plage, et/ou gêne la pêche ou l'aquaculture. Nous avons remarqué les restes encore présents dans les rues et sur la plage de cette boue crayeuse à la suite de pluies abondantes qui s'étaient abattues sur la région et qui ont causé quelques désagréments aux Sangattois. L'eau écoulée, il en reste la boue blanche. Il leur a fallu obtenir les services de camions spéciaux pour pomper cette boue.

A Sangatte, ils ont construit des digues pour retenir cette boue de craie, lesquelles ont dû être rehaussées de plusieurs mètres parce qu'on n'avait pu prévoir le volume global avant le début des travaux. Cette rectification a contribué au dépassement du coût des travaux.

Il est entendu qu'un grand tunnel a besoin de beaucoup de béton pour son revêtement, donc beaucoup de substances diverses telles sable et gravier. La tendance est toujours d'aller les extraire le plus près possible des débouchés du tunnel. Ceci occasionne dans la région de Calais l'apparition de nouvelles gravières (étangs) ou des carrières pas forcément aux meilleurs endroits (tel que nous l'avons constaté), avec poussières, bruit et transport routier important sur des routes de village gênant tout le monde.

Le tunnel sous la Manche sera de 50 km. Les automobilistes, les camions seront transportés par des navettes ferroviaires du tunnel et pourront rester dans leur véhicule pendant la traversée. La commission inter-gouvernementale annonça récemment que les conducteurs de poids-lourds, caravanes, camping-cars et de motos devront voyager séparés de leur véhicule.

Depuis le début des travaux, soit depuis janvier 1988, le contracteur a rencontré plusieurs problèmes. D'abord la nouvelle date d'ouverture du tunnel fut remise en 1993 laquelle avait déjà été reculée.

Les coûts de la construction avaient été prévus à $1.6 billion mais dû aux délais et à l'inflation, ils sont présentement estimés à $11.2 billion et continuent à augmenter (personne ne semble savoir de combien).

On nous a rappelé que les gens du gouvernement ne voulaient pas construire le tunnel avec l'argent des payeurs de taxes. Alors ils ont procédé par soumissions privées en 1985. Ils ont retenu les services en 1986 d'EUROTUNNEL.

Aujourd'hui la question d'argent demeure un gros problème. EUROTUNNEL avait prédit qu'il pourrait construire le projet au complet pour environ $7.7 billion. En décembre dernier on annonçait que 30% du tunnel est complété et que les coûts estimés sont de $11.2 billion.

On attribue ceci à:

a. l'inflation des coûts de construction qui ont augmenté de 15% par année au lieu de 4.5 prévus;

b. au cours du creusage et de la construction du terminal, le contracteur a rencontré des fissures souterraines inattendues lesquelles ont exigé des renforcements supplémentaires ce qui a occasionné un retard de 5 mois du côté de l'Angleterre;

c. ils ont eu des augmentations des coûts et ont connu également une grève d'ouvriers;

d. on a également indiqué que les autorités ont peut-être sous estimé les coûts des à-côtés du projet.

Durant notre séjour à Sangatte et Calais on nous a indiqué que la France et l'Angleterre avaient considéré la construction d'un tunnel sous-terrain au moins une douzaine de fois depuis 1880.

Au cours de ces rencontres, de ces discussions et pourparlers avec les divers groupes tels de l'environnement, les gens du milieu, tous avaient été assez concernés au sujet de la traversée par tunnel. Les opérateurs du "Dover and Folkestone Ferry" se plaignaient de la disparition de leur entreprise. Il est encore aujourd'hui très primordial pour tous de protéger les gens et l'environnement ainsi que d'assurer bonne compensation envers la vocation maritime de la région de Calais.

Les gens ont profondément étudié les pour et les contre d'un tunnel c'est pourquoi ils ont décidé à l'idée d'un tunnel avec voies ferrées afin d'éviter le problème de la pollution.

Au cours de nos conversations avec diverses personnes, nous sommes en mesure de comprendre beaucoup mieux le pourquoi qu'un tunnel n'est pas la solution pour un lien-fixe entre le Cap Tourmentin et Borden.

En plus du problème de l'entreposage des déchets nous avons constaté également:

- qu'il est impossible de prédire un coût fixe pour la construction d'un tunnel. Il y a trop d'imprévus au cours du creusage;

- un grand tunnel nécessite une très importante ventilation ce qui est une source de bruit permanent, pour toujours, dans le voisinage. Il y a également la pollution qui sort de chaque sortie du tunnel qui pollue tout l'environnement;

- un tunnel moindrement long est la cause de nombreux accidents et des cas de mortalités dû à la panique et à la claustrophobie (ex. tunnel au Japon);

- la tendance constante, lors de la planification financière de la contruction d'un tunnel, est à la sous-estimation initiale.

Rélexions sur un pont:

- un pont pollue certainement moins;

- ses prévisions de coût sont plus aisées à respecter (comme ont nous l'a expliqué, les techniques offshore sont au point;

- les professionnels et les gens en affaires ont un accès plus rapides et plus régulier avec la province voisine;

- le secteur service est également plus rapide. Les gens de l'Ile de Ré nous ont exprimé combien ils bénéficient du pont pour combler leur vie sociale et culturelle, ainsi que pour l'écoulement par transport rapide de leurs produits. Le temps est de l'argent;

- un meilleur contrôle sur l'environnement, l'écologie et sur la construction elle-même;

- selon les rapports entendus et le vidéo visionné, il n'y eut aucun problème pour le domaine de la pêche en ce qui concerne les pêcheurs de l'Ile de Ré.

Il est entendu que nous n'avons pas le même climat que la région visitée. Le trafic sur le pont est soumis aux intempéries (brouillards, pluie glaçante, neige...) s'il n'est pas couvert. S'il arrive qu'il y a tempête on ferme l'entrée du pont tout comme le traversier qui cesse ses traversées. Quant à la surface glacée du pont on nous rassure qu'avec de nouvelles technologies avancées l'on pourra remédier facilement à ce problème. On procède à de nouvelles expériences. Il y a peut-être lieu de craindre les amoncellements de glace sur le détroit de Northumberland. Encore-là, l'on suggère l'utilisation de remorques pour chasser et diriger ces amoncellements.

Recommandation spéciale

Au cours de nos discussions, il fut fermement recommandé:

"Nous recommandons fortement aux pêcheurs d'obtenir un engagement ferme de la part du gouvernement auprès des contracteurs pour l'obtention d'une compensation pour la perte de pêche par les pêcheurs pendant et après la construction du pont avant la signature de toute entente de construction."

Raymond LeBlanc, Commissaire industriel
mars 1990

BRIEF PRESENTED TO

ENVIRONMENTAL ASSESSMENT REVIEW PANEL

AS PART OF

FINAL PUBLIC HEARINGS

by

Michael J. McGeoghegan

on

March 19, 1990

Mr. Chairman and Members of the Panel,

What I have to say tonight is not new and you have probably heard it before. I am on record as being one of the first to speak out publicly against this project. In the Guardian on March 12, 1986 I stated that "information on the impact of this crossing is not getting out to the fishermen or the general public." Unfortunately, in spite of Public Works' million dollar reports, my concerns from 1986 are still here.

We are dealing with a no-name project. Noone can make an intelligent decision on something that is imaginary. You can't even build an outhouse without a building permit based on a definite plan, but Public Works has expected us to buy their bridge proposal without knowing what it entails. One thing that has become increasingly clear is that Public Works Canada is the proponent, and since that is fact, all of their reports must be looked at in that light. Over and over their assessment of negative environmental impacts are minimized and slanted in favor of the project. It has been totaly unfair in the respect that the proponent has had unlimited access to funds for so-called consultants and studies, yet we as fishermen were denied interim funding to do our own studies.

Therefore, we have to keep coming back to our "gut" feelings that something is terribly wrong here and that noone, not even Public Works, knows what environmental problems lie ahead in this project. They have not proven that a bridge will not cause environmental harm. Back in 1987 Public Works Minister, Stewart MacInnes, stated that nothing would be done against the wishes of the fishermen. If the fishermen were against a bridge he would drop the project. He lied then and we continue to be ignored by Public Works today. If they had kept their word, they would not be still advocating a bridge.

"Public Works Bridge Concept Assessement is not scientifically credible." That was stated in a brief presented by DFO in June 1989 to your panel. Seven DFO scientists reviewed concerns about the bridge proposal and they concluded, "Impacts of proposed bridges are impossible to evaluate at this time." That is consistent with what Dr. David Suzuki said on January 5, 1988 and I quote, "You must understand that you cannot at this time predict what is going to happen to that marine ecosystem, and that none of the studies have adequately done that because they are not predictive." Who do we believe - someone who has spent their lives studing environmental science or those who will benefit financially and politically from the mega-project of the century?

World wide the enviromnent is the most important issue today. Yet we have big business intrests recommending to us to not let the environmental concerns get in the way of prosperity. Where is the common sense in this whole issue?

It seems that the fishermen are expected to sacrifice their livelihoods and culture for the financial gain of the bridge builders and a few select others. Believe it or not, fishermen and farmers are what make P.E.I. unique and attract others here. We are a distinct society. According to the Meech Lake Accord, protected under the Constitution of Canada, we have the Federal government spending taxpayers money to tear down one distinct society, while trying to protect another. None of it makes any sense.

As an example of Public Works double talk in their Bridge Concept Assessment, they go into detail to make comparison between the effects of global warming on the fishery and the effects of a bridge crossing on the fishery. On page M-7 and M-8 they state, "In contrast to the dramatic effects anticipated as a result of global warming, environmental effects expected to occur as a result of the development of a bridge across the Northumberland Strait are slight." It continues, "The predicted global warmings... will produce such rapid climate and habitat change that it will be likely that fisheries management policies and practices will have to continually change, as the environment changes. By comparison, the impact of the bridge will be slight (barely measurable, if at all)." That last ststement does not sound very scientific. We don't have much of a choice regarding global warming but we can choose not to build a bridge.

On page N-5 in refering to mitigation plans for risks, Public Works says the plans, " assume sound engineering, construction, and operational practices." The environment can no longer afford to be left to assumption.

Questions that I brought before your panel in June]989, still do not seem to be answered. Dredging will last 2-3 years, three hundred thousand cubic meters of sediment will be removed. Where is it going? All fishermen in the strait will be affected by the increased transport vessels between Pictouand Borden. Will they be compensated for damaged gear? What contingency plans have been made in case of a major collision of an oil tanker with the bridge? Saying it is a low risk occurence is not an answer.

In view of the effects of noise pollution on fish as studied by Marine Biologist, Arthur Myrberg of the University of ~~Maine~~ MIAMI, how can the effects of construction be temporary?

What about the tunnel option? Are there any ice studies being done this winter when it was considerably worse than in]987 when there was light coverage?

Fishermen's "feelings" about this may not be scientifically proven, but they certainly have more scientific bearing than Public Works because we spend a good deal of time directly in the environment we are discussing, unlike Public Works and its consultants.

To say the least, I am not satisfied with the studies to date. They have not quieted my fears but only increased them because of the lack of concern or care expressed in Public Works' reports.

I agree with New Brunswick fishermen, a five year moratorium should be placed on this project. I also request that a full public inquiry into the actions of Public Works be held. They have more than a passing interest in the project and the public has a right to know why they are promoting it so strongly.

I thank you for listening to me. God bless you in your deliberation.

DRAKE
truck bodies

Vernon Bridge, P.E.I.
C0A 2E0

Phone: 902-651-2782
Fax No.: 902-651-2786

Complete line of truck body building service.

SUBMISSION TO:

ENVIRONMENTAL ASSESSMENT PANEL REVIEVING THE NORTHUMBERLAND STRAIT CROSSING PROJECT

BELFAST, P.E.I.

MARCH 19TH, 1990

SUBMITTED BY:

MR. ALLISON DRAKE

GOOD EVENING MR. CHAIRMAN, PANEL MEMBERS AND LADIES AND GENTLEMAN.

I APPRECIATE THE OPPORTUNITY TO ADDRESS THIS PANEL THIS EVENING. MY NAME IS ALLISON DRAKE. I WAS BORN AND EDUCATED IN VERNON BRIDGE, PRINCE EDWARD ISLAND. AFTER ELEMENTARY SCHOOL, I ATTENDED MONTAGUE REGIONAL HIGH. MY PUBLIC EDUCATION WAS COMPLETED BY RECEIVING A BACHELOR OF ARTS AND A BACHELOR OF BUSINESS ADMINISTRATION DEGREE FROM THE UNIVERSITY OF PRINCE EDWARD ISLAND.

I AM THE OWNER OF DRAKE TRUCK BODIES LTD. OF VERNON BRIDGE. WE MANUFACTURE ALUMINUM VAN BODIES, REEFER BODIES, STAKE AND RACK TRUCK BODIES AND SERVICE RELATED WORK. WE EMPLOY TWELVE (12) PEOPLE FROM THE LOCAL AREA. WE ARE VERY CLOSELY AFFILIATED WITH TODAY'S TRUCKING INDUSTRY THROUGH OUR BUSINESS RELATIONS AND OUR ASSOCIATION MEMBERSHIPS.

PRESENTLY I AM CHAIRMAN OF EASTERN VENTURES AND DEVELOPMENT CORPORATION IN GEORGETOWN. WE PROVIDE AND ADMINISTER FINANCING FOR HIGH RISK START UP SMALL BUSINESSES. SUPPORTING THE FIXED LINK CONCEPT COMPLIMENTS THE EFFORTS OF THIS CORPORATION. IF THE SEEDS OF ENTREPRENEURSHIP ARE NOT SOWN, NURTURED AND ALLOWED TO GROW BY EVERY MEANS POSSIBLE; THEN ECONOMIC SELF SUFFICIENCY WITHIN THE REGION CAN NEVER BE ATTAINED.

AS VICE CHAIRMAN OF THE P.E.I. DIVISION OF THE CANADIAN MANUFACTURERS ASSOCIATION; IT IS OUR GOAL TO ENCOURAGE THE EXPANSION OF OUR MANUFACTURING BASE. THIS SECTOR OFFERS THE BEST AVAILABLE SOURCE OF LONG TERM MEANINGFUL EMPLOYMENT. ITS ECONOMIC SPIN-OFFS ARE RIVALED ONLY BY THOSE OF AGRICULTURE. I AM ALSO A ACTIVE MEMBER OF THE TRANSPORTATION COMMITTEE OF THE GREATER CHARLOTTETOWN AREA CHAMBER OF

COMMERCE. THE CHAMBER'S POSITION IS TO COMPLIMENT AND ENHANCE THE DEVELOPMENT OF THE BUSINESS SECTOR IN GENERAL.

THE ISSUE TO BE ADDRESSED THIS EVENING IS OF UTMOST IMPORTANCE TO THE FUTURE DEVELOPMENT OF OUR PROVINCE. THE OPPORTUNITIES WHICH COULD EXIST FROM THE CONSTRUCTION OF A FIXED LINK IN AN ORDERLY WELL PLANNED FASHION ARE ABUNDANT. THE CONSEQUENCES OF NOT HAVING A FIXED LINK TO THE MAINLAND WILL ADVERSELY EFFECT OUR ABILITY TO SUSTAIN A BETTER ECONOMIC FUTURE FOR ALL ISLANDERS. CAREFUL PLANNING AND STUDY HAS BEEN COMPLETED. AND NOW WE ARE LEFT WITH GETTING ON WITH THE PROJECT.

WE ARE APPROACHING THE 21ST CENTURY. WORLD PEACE APPEARS ATTAINABLE. BARRICADES BETWEEN NATIONS AFFECTING PEOPLE'S MOBILITY ARE BEING REMOVED. BARRIERS TO INTERNATIONAL TRADE HAVE ADVERSELY EFFECTED PEOPLES ABILITY TO SURVIVE ECONOMICALLY. OPPORTUNITIES EXIST FOR FUTURE DEVELOPMENT THROUGH THE CANADA - U.S.A. FREE TRADE AGREEMENT, IF WE TAKE THE INITIATIVE. FOR TOO LONG WE AS CANADIANS HAVE ISOLATED OURSELVES ECONOMICALLY FROM THE REST OF THE WORLD. THIS ISOLATION HAS HAD A DETRIMENTAL IMPACT ON OUR ABILITY TO PRODUCE GOODS AND SERVICES COMPETITIVELY. THIS INABILITY TO COMPETE EFFECTS THE SOCIAL-ECONOMIC WELL BEING OF ALL CANADIANS. IT IS TIME TO FACE REALITY. THERE IS A BIG WORLD OUT THERE. ARE WE WILLING TO REMAIN IN ISOLATION? CAN WE AFFORD NOT TO OPEN NEW DOORS TO ORDERLY DEVELOPMENT? DO WE HAVE TO RELY ON OTTAWA FOR OUR VERY EXISTENCE? IS THERE AND WILL THERE ALWAYS BE HELP FOR THOSE WHO REFUSE TO HELP THEMSELVES?

THE COUNCIL OF MARITIME PREMIERS ARE PRESENTLY IMPLEMENTING THE REMOVAL OF INTER-PROVINCIAL TRADE BARRIERS WITHIN THE REGION. THESE LONG STANDING BARRIERS HAVE BECOME PREDOMINANT ALSO IN THE BUSINESS SECTOR.

WE DID NOT REALIZE THEIR IMPACT ON THE ECONOMY UNTIL WE TRIED TO DEVELOP MARKETS ON THE MAINLAND. CUSTOMERS THERE ARE VERY SKEPTICAL OF OUR ABILITY TO DELIVER AND EVENTUALLY SERVICE OUR PRODUCTS BECAUSE OF OUR ISOLATION FROM THE MAINLAND.

NUMEROUS INDIVIDUALS HAVE ASKED US WHY WE LOCATED OUR BUSINESS IN VERNON BRIDGE. THERE WERE NUMEROUS ADVANTAGES AT THAT TIME. LAND WAS READILY AVAILABLE AT A REASONABLE PRICE. OUR CUSTOMERS TRAVEL THE TRANS CANADA EVERY DAY. WE WERE AND ARE ABLE TO DRAW ON THE LOCAL WORK FORCE. WE ALSO DID NOT HAVE TO CONTEND WITH NUMEROUS OF EXTERNAL RULES AND REGULATIONS. OUR LOCATION WAS READILY ACCESSIBLE TO THE TRUCKING INDUSTRY WHEN OPERATING WITHIN THE ISLAND MARKET PLACE. AS OUR BUSINESS INCREASED IT BECAME CRUCIAL TO SEEK MARKETS ON THE MAINLAND. OUR LACK OF CONTINUOUS ACCESS TO THE MAINLAND FORCES OUR POTENTIAL CUSTOMERS TO PURCHASE ELSEWHERE. THE SHEER FACT THAT WE ARE AN ISLAND WILL NEVER CHANGE. HOPEFULLY THE DETRIMENTAL BUSINESS IMPACT ASSOCIATED WITH THAT PSYCHOLOGICAL ISOLATION WILL. THE LACK OF A FIXED LINK TO THE MAINLAND IS DETRIMENTAL TO THE ECONOMIC SUCCESS OF ANY BUSINESS ENTERPRISE. THE ADDED TRANSPORTATION DELAYS AND COSTS ARE INCURRED BY EVERY ISLANDER. FURTHERMORE THOSE COMPANIES WILLING TO INVEST HERE CONSIDER TRANSPORT COSTS AS ONE OF THE CRITICAL DETERMINING FACTORS.

TODAY OUR BUSINESS'S VERY SURVIVAL DEPENDS ON READILY AVAILABLE ACCESS TO THAT MARKET. IF YOU DO NOT HAVE A MARKET; THEN YOU DO NOT HAVE A BUSINESS. WITHOUT A BUSINESS YOU DO NOT HAVE PEOPLE. OUR PEOPLE ARE DEDICATED EMPLOYEES WANTING TO WORK, LIVE AND RAISE THEIR FAMILIES ON THE ISLAND. THEY ARE PROUD OF THEIR WORK, PROUD OF THEIR HERITAGE, PROUD OF THE FACT THEY DON'T HAVE TO RELY ON GOVERNMENT FOR A LIVING.

WE RAISED THEM, NURTURED THEM, EDUCATED THEM. WHY SEND THEM AWAY AGAINST THEIR WILL?

IN 1974, WHEN I WAS STILL SINGLE AND A GRADUATE OUT OF UNIVERSITY. I LEFT THE ISLAND. I ATTENDED MCMASTER UNIVERSITY IN HAMILTON FOR THE PURPOSE OF OBTAINING A MASTERS DEGREE IN BRITISH HISTORY. IT WAS A PROGRAM WHICH COMPELLED ONE TO THINK. I SOON REALIZED THAT I WAS LIMITING MY CHANCES OF EVER RETURNING TO THE ISLAND AND OBTAINING EMPLOYMENT. THE FEELING OF HAVING TO MOVE AWAY TO GET MEANINGFUL EMPLOYMENT IS DEVASTATING. I RETURNED TO THE ISLAND AND CREATED MY OWN EMPLOYMENT. I WOULD NOT WISH A MOVE ON ANYONE; LET ALONE PROMOTE IT BY NOT ENCOURAGING ORDERLY DEVELOPMENT. PROCEDURE WITH THE FIXED LINK PROJECT IS CRITICAL. PROTECTION OF THE ENVIRONMENT IS CRITICAL. GIVING ISLANDERS A BETTER MEANS OF HELPING THEMSELVES IS CRUCIAL. I FEEL THAT THE STUDIES ARE COMPLETE. IF WE WASTE ANY MORE TIME WE WILL BE WONDERING IN A ANOTHER ONE HUNDRED YEARS; WHY OUR POPULATION IS STILL 125,000 PEOPLE? WHY WE CONTINUE TO EDUCATE PEOPLE TO MOVE AWAY? WHY WE HAVE TO RELY ON OTTAWA TO SUSTAIN OURSELVES.

THANK YOU

A Presentation to the Federal Environmental Assessment Panel studying the Northumberland Strait Crossing Project at Belfast, P.E.I.

Kip Smith
Fisherman/Businessman
RR#3 Belle River PO
PEI COA 1B0

March 20, 1990

I would like to take this opportunity to thank the panel for including the Belfast area on its busy agenda of public hearings into the Northumberland Strait Crossing project.I am glad the ladies and gentlemen of the panel saw fit to visit this community to seek opinions about the fixed link.

I believe this type of panel can and should investigate whether or not it is possible or even desirable to build a bridge to New Brunswick or less likely, a tunnel to the mainland.

The recent Supreme court ruling on the Rafferty dam project in Alberta reaffirms the legality and necessity of a full environmental assessment of all large federal projects. The Strait crossing project clearly fits the description of the type of endeavour that requires close, independent assessment, it will affect the environment of the gulf, our Island and our community for a long time.

It is not clear to me why this panel, unlike all other federal environmental assessment panels, is restricted to studying a generic proposal instead of one specific crossing project. I hope the imposed distance from the actual fixed link, if there is to be one, does not mean that your panel will be less effective than if a contractor had to directly respond to your concerns. An example of this could be the answers given by DPW to the panel's questions from the first round of public hearings.
It seems to me that some of those questions were not really answered, such as the accident probabilities of hazardous goods. I would suggest that the Coles report on Vessel and Bridge safety could have offered statistical information for models that were used in the reply to question F-1. I don't understand why DPW engineers came up with other accident probabilities not necessarily based on historical shipping records. It seems to me the DPW filters or manipulates raw information and data in such a way as to make end conclusions differ from some of their own consultant reports.

I am not sure if my feeling of unease about the required "independence" of the DPW is justified or not, but I know that I have been subjected to managed and homogenized information about the Crossing project that originates from that department.
By now, I am sure this panel has been exposed to the same type of information. Please pay particular attention to Dr. Byer's report to the panel of Jan. 29. He too, is seeking more information.
Again, I would caution this panel to review all data used in the many studies now before it. what I mean is please compare the sources of pertinent physical effects such as tide, wind speed, ice thickness , current strength etc. The types of raw statistics and figures that informed conclusions are normally based upon. I am afraid that many of the consultant studies are derived from inaccurate and even inappropriate inputs, and at best, a small base of facts.

I will enter into more detail when I comment to the panel during the ice regime review later. That will be my ice time,but I would hope that this panel might request further observations about ice this season since it appears to be quite thick in the

Abegwit passage.
[illegible] am afraid that this general Belfast area has been largely ignored in most of the studies concerned about the feasibility and effects of such a large project. There are passing references of this Wood Islands area in the only social impact study prepared by Smith /Green, but they are quite brief. That study admitted that there should be further studies about the impact of a fixed link on Wood Island's ferry traffic. Decreased traffic here will definitely mean that govt. subsidies to Northumberland ferries will be cut and we and the Caribou area will lose jobs.

I could lose my job if traffic slows too much here. I have a lobster pound at the Wood Island's terminal. What will happen to that business if a fixed link is built. One figure states that traffic will be cut 35%. That could affect my new business. Lobstering is good here. Fishermen here and fisheries officials know that Strait waters in this area are spawning grounds for lobster. That is why Mike McGeoghan and others all the way past Wood Islands catch such a high percentage of market sized lobsters when you compare their 70 per cent and more with fishermen elsewhere. How can they be compensated if there are problems with the crossing? How long will it take to figure how much they would be entitled to if a spill from the link ruined fishing ground way down here? Will fishermen have to prove damage done to them or will the govt. assume an advocacy role on the fishermen's behalf versus the developer?
How could damage be proven, especially long term damage to a species?

As Secretary Treasurer of the Southern Kings and Queens Fishermen's Association, I have grave reservations about whether a bridge to the mainland will harm our fishing grounds and fishstocks in the gulf. I worry that if a bridge is approved, that necessary studies about the effects on fishing will not be done and I have no illusions about the fact that studies done concerning fishing and fishermen to date are inadequate. I share concerns with the scientists in the Federal Dept.of Fisheries and Oceans that have been brought before this panel. I also partly own a mid shore groundfishing boat. From my work on the Atlantic groundfish advisory committee, I am aware that cod and hake stocks we fish around Cheticamp and East point migrate through Abegwit passage. To date, fishermen like us in Nova Scotia and N.B. have not been factored in for compensation if cod stocks drop because of a bridge accident or construction problems.
Our migrating stocks have not even been included in studies although catch records exist as well as biological information about gulf groundfish that pass through the proposed bridge site.

There is much more I worry about when I think about a bridge across waters I know to be dangerous and dynamic.
I would like this panel to investigate whether or not a bridge across the Strait is even economically feasible. It boggles the mind to figure how a billion or so dollar project can get

financing from the private sector.Current interest rates are around 13%...that is alot of interest..Where will the money come from and who will benefit?.

The highly publicized and oft compared English Channel Tunnel or Chunnel is in trouble according to The Economist magazine of Feb 24 ...The chunnel "has to raise another 1.5 billion pounds to cover cost overruns".

The March 10 issue says "Trafalgar House and BICC, British Rails' partners in the Channel -tunnel rail link let it be known that they will pull out unless the project gets a govt. subsidy. Last year they won the right to build the link by agreeing to the government's condition that it be self-financing.Now they say detailed costings are higher than expected."

Could that happen here? I certainly hope that this panel explores the economics of this project, for as work progresses and dollars have to be saved, corners are cut by pressured contractors and investors.

I plugged in some figures that might be instructive. I used values I have heard in the media so I would ask this panel to adjust them as they see fit. This is for a concept study as to whether PEI citizens will really benefit in the actual construction of a link that would replace the ferry or possibly ferries (if Wood Islands ferry service is cut or downsized).

Of the construction cost of $700 million to $1 billion, who really benefits.

1)Large amounts of structural steel, reinforcing steel and cement will be needed for a bridge. I do not think any dollars for those large components will come here. The same for oils,fuel,paint or almost any material needed to build a bridge. They probably will not come to PEI. Why would a contractor with an eye on profits, buy goods from PEI that are usually priced higher than the mainland? No Dollars for our PEI community there.

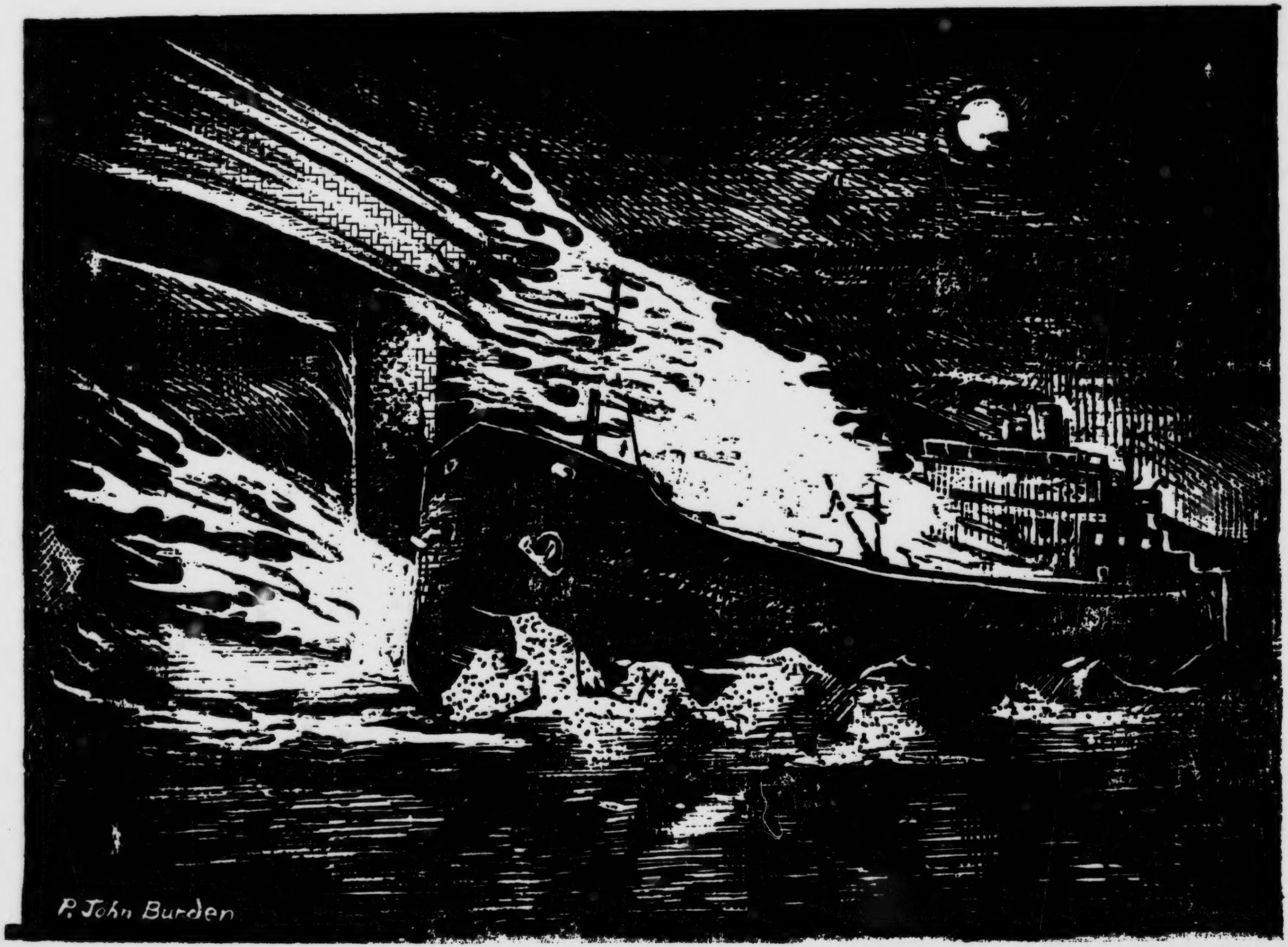
2)Jobs...of the 4 or 5 years of work in construction, how many will be filled by Islanders. One study said 30% to 40%. Quite a difference there, 10 percentage points, neighbors. Pick a figure, some dollars there.

3)Some maintenance jobs and jobs running a link..60 or so according to one study...some dollars there.

versus...

635 good paying ferry jobs with health benefits and retirement packages on Marine Atlantic, plus who knows how many jobs at their head office in Moncton..figures including spinoff I have heard from the union there is 17 million dollars a year X the amount of years the ferry runs, (100 years?) plus construction jobs in under utilized Canadian shipyards for replacement boats plus who knows how many jobs lost here at Wood Islands....No comparison...I suppose one could add tourism related jobs for the increased traffic expected, but those types of jobs are low paying. Also factor in an unknown loss in fishing jobs ...

How does the comparison of benefits look for our Island community?



P. John Burden

The ice, the bridge,

BY KIP SMITH

The cold February winds gusted past the bridge of the Irving Nordic. Eighty feet below, ice blocks splintered and shrieked against the tanker's hull.

The skipper turned back to the radio speaker and the patient tone of the captain of the coast guard icebreaker, Tupper. "Back to you John, we're still cutting channel for this potato packer."

Six hours of heavy going from Summerside Harbour to our present position. We're just inside MacCallum's point."

How are you getting along, over?"

"Roger, Red, seven miles east of the bridge".

"Still taking small bites in this blocky stuff." Seems to be fattening up as we near the passage."

"We'll take her slow and keep her free..wait for you to take us to Buctouche, if you can put us on your dance card, that is. Over."

Captain Red Cowan heard the strain in his old friend's voice through the banter. What a hellish two days it had been, and not over yet.

The old scow of a ship in the Tupper's wake was underway finally, after a four week breakdown and then, incredibly, she ran aground coming out of the harbour.

. After 38 hours of tugging and keeping a lane around the ship open, the surge tide had lifted her off.

The tide also brought the pressure of the ice close to the cargo ship's rusty hull.

"Just keep her moving," Ted thought. "and her pumps going 'til she's out of our hair," as the icebreaker took another run into the pack ice.

"Roger Johh, we'll waltz out your way soon enough; then off to Buctouche." We'll convoy up, get you there..wait till you offload, then head down the Strait away from this mess. Sound good pardner?...the bounding main, over?"

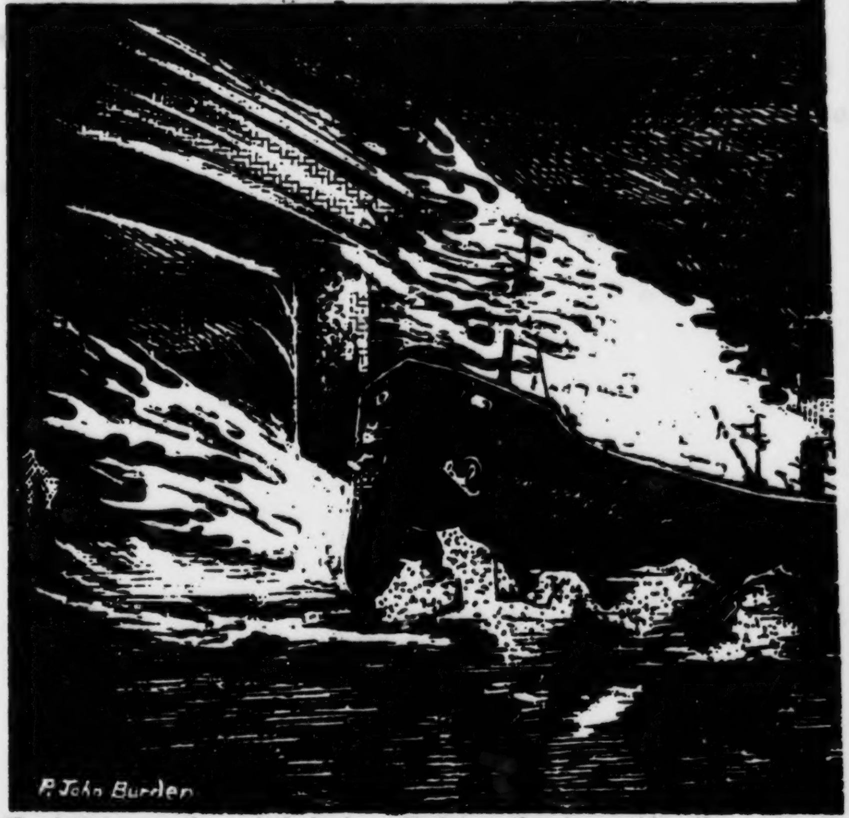
"Roger, Ted, it'll be a pleasure..how long till rendezvous, over," Captain John White asked.

Captain Cowan paused, then replied quietly, "at least 10 hours John, keep pushing ahead 'til we cut over your course, okay? over."

"Roger Red, we'll see you when we do. Irving Nordic, over and out."

"Read you John Tupper over and out."

The wind in Abegweit Passage was picking up as the tanker shuddered ahead, then back, then forward again, ever so slowly into the pack ice.



Ever since the tanker had left Charlottetown, the wind had blown her up the Strait. Now, 120 km. gusts pushed the ship along with the four knot tide as the passage between the Island and the mainland narrowed. Ahead, through the swirls of snow, Captain White could see the lights of the navigation channel, the 500 foot passage through the maze of concrete and steel that linked New Brunswick and Prince Edward Island.

Six miles away, car headlights dotted a straight line across Norhumberland Strait, except in the middle, where the roadway perched on taller piers 150 feet over the ice-plugged shipping lanes.

The Nordic luched suddenly into layers of ice that had rafted together, the thickening ice left from the passage of the icebreaker days before. "Half astern," Captain White called out.

The deck shook as the vessel fought her way off the ice and into the strengthening wind and tide. The clear water astern was quickly filling with blocks and floes cut from the ship's path.

Nudging the ice aside, the vessel backtracked to gain clear water ahead so the run forward would carry more force into the ice, but deeper into the white surrounding the ship.

"All engines stop," as the black path ahead began to quickly fill with ice, "Full ahead, " but the pieces in front buffered the uncut pack ice.

"'Not near the hit I wanted," Captain White said to the helm.

"Half astern". Ice along the tanker's hull groaned as the ship tried to slip her way backward slower and slower she went, as the ice pushed harder along the vessel's length.

Th
as t
blue
prope
wasn'
lost
ing
Re
again
of i
bro
Irving
It h
the
as t

off
and
ther
The
were pu
the
Hou
being p
to th b
ther
Th d
dic awa
channel
tec
vuln a
the b
"unh
tain hi

ridge and what if.....

plugged shipping

dic luched suddenly of ice that had rafted hickening ice left assage of the days before. "Half aptain White called

ook as the vessel vay off the ice and in- ngthening wind and water astern was with blocks and om the ship's path.

e ice aside, the cked to gain clear l so the run forward ore force into the r into the white e ship.

nes stop," as the d began to quick- "Full ahead, " in front buffered ck ice.

he hit I wanted," said to the helm. ". Ice along the groaned as the ship er way backward wer she went, as harder along the

The [illegible] wheel spun crazily as the [illegible] slammed into a blue block of ice pulled by the propellors. Although the rudder wasn't damaged, minutes were lost inspecting the ship's steering system.

Relentlessly, the ice pressed against the hull, until the friction of its bearing against the ship, brought the vessel to a halt. The Irving Nórdic was "beset".

It had happened before, and the ship and crew had fared well as they waited for the ice to ease off en[illegible] start moving back and forth again. But this time, there was a difference.

The strong winds and tide were pushing the pack of ice and the tanker toward the bridge. Hours went by, and the ship was being pushed closer, ever closer to the bridge, half a mile away then.

The drift had angled the Nordic away from the navigation channel and the bridge's protected piers, to the more vulnerable side span section of the bridge resting on "unhardened" supports. Captain White w[illegible]ed helplessly as his ship drifted ever closer to the span.

The winds were picking up again, a fierce gale now, slowly turning the ship, so the tanker was angled a bit to the bridge. The crew was ready when the cement pier struck the Irving Nordic amidships, and the ship's bridge was clear when the superstructure slammed into the steel bridge truss. The power of the wind and tide shoved and ground the ship's outer hull into the cement support.,

That unforgiving force continued, even as the tanker's middle starboard hold split open, spilling its cargo of 1.3 million litres of unleaded gasoline, onto the ice of Northumberland Strait.

Engineers find open w

BY KIP SMITH

Members of a fact-finding mission to Scandinavia were disappointed to find warmer weather than expected , and worse, no ice.

Ice specialist Dr Tom Brown and the three engineers of the group had planned to study "the movement of ice around fixed link projects," but what they found was open water.

Glenn Duncan, officer in charge of the Northumberland Strait Crossing Project for the Department of Public Works (DPW) and organizer of the nine-person tour, admitted the absence of ice was a letdown, but said the on-site inspections provided other information relevant to the proposed P.E.I. fixed link.

"Before this trip, we had only conversations on the telephone with the Oland Bridge contractors in Sweden," Mr Duncan said, "and that led to some misunderstandings."

The lack of ice at the Oland bridge site could have come as no surprise to the group. A 30 page report prepared by the AB Skanska company, contractors of the bridge, said ice was totally absent two of the four years during construction. One year (1968) drift ice from the Baltic Sea delayed foundation work. The remaining year was characterized by a firm ice cover across the roughly 6 kilometres wide Kalmarsund. That season breaking and drift ice did not trouble the site at all.

The report was available at the Strait Crossing office before the trip, but members of the group did not get a look at the descriptive document.

Glenn Duncan said the two days spent at the Oland site cleared up many misconceptions assumed by his department. He said that although the bridge was "not as analogous to a P.E.I. site as we thought, it is still the closest thing to it in the world. Other bridges span more extreme waters but they are not supported by pillars through the ice."

Mr Duncan added that tide and currents in the Kalmarsund proved to be so dissimilar to Northumberland Strait conditions, comparisons could not be fairly drawn. "Some wind generated currents were recorded as high as 7 knots, but a tidal difference of 30 cm. from low to high tide does not compare to the more dynamic Strait tides."

The tides and winds of the Baltic Sea are not strong enough to move the "short fast" (or attached) ice in the sund when the winter is severe enough to produce an ice cover. Break-ups have been orderly and unaffected by the crossing, according to reports.

The federal Department of Public Works hired ice specialist Dr Tom Brown of the Bercha Consulting Group to study the European conditions. Although the lack of ice prevented comparison field work, Dr Brown will still complete a survey of P.E.I. ice conditions this season for the DPW. The government's Initial Evaluation Assessment, released this fall, called for more complete ice and climate studies.

The shallower Kalmarsund waters have had ice pans only 3/4 of a metre thick recorded as the worst ever condition. Stories of 10 metre thick pack ice in Northumberland Strait are not uncommon.

Mr Duncan says his department can obtain other ice information from Canadian oil projects in the Beaufort Sea. The tour group spoke with officials of the Eurotunnel project for an afternoon and "gathered practical data."

Other stops on the week-long tour included a double undersea tunnel project in Norway and a proposed bridge-tunnel combination in Denmark.

Mr Duncan said summaries of the group's junket would not be made public but "would be available and very helpful to companies submitting proposals to P.E.I.'s fixed li

He added the vi
jects made him
fident than ever
seen problems of
can be solved te
Other membe

The Ea

Vol. 25, No. 17

Politicians disagree over secrecy of link plans

BY KIP SMITH

Cardigan MP Pat Binns says Islanders need more information about fixed link proposals than Federal Minister of Public Works Stewart McInnes is initially prepared to let out.

Mr Binns cautions that, "although certain details like costings that could jeopardize

The federal Public Works Minister added that Islanders could offer their opinions after one fixed link proposal, the cheapest one, is chosen by his department.

Many differences!

open water, no ice

leral Department of
r hired ice specialist
wn of the Bercha
Group to study the
conditions. Although
ce prevented com-
e work, Dr Brown
complete a survey of
conditions this season
The government's
ation Assessment,
this fall, called for
te ice and climate

a wer Kalmarsund
ve had ice pans only 3/
thick recorded as
e condition. Stories
e ck pack ice in Nor-
nd Strait are not un-

ic says his depart-
o ain other ice infor-
om Canadian oil pro-
h Beaufort Sea. The
s ke with officials of
unnel project for an
and "gathered prac-

tops on the week-long
ded a double undersea
oj in Norway and a
idge-tunnel com-
n Denmark.

said summaries of
nket would not be
c but "would be
d very helpful to
bmitting proposals

to P.E.I.'s fixed link project."

He added the visit to other projects made him feel "more confident than ever that even unforseen problems of such projects can be solved technically."

Other members of the mission echoed that confidence, although MP Pat Binns admitted his information from the tour remains "general and somewhat sketchy," he said that, as a layperson, he feels there is no question that a link to New Brunswick is technically feasible. He added that economic and environmental factors of a final proposal will determine whether a P.E.I. link is built.

The Eastern Graphic

The Lively One

Vol. 25, No. 17, Wednesday, March 30, 1988

Montague, Prince Edward Island 60¢

over

ns

l link proposal, the
o , is chosen by his-
n

nces!

Elisa and her brother Bradley Davies from Flat River spent

Politicians disagree over secrecy of link plans

BY KIP SMITH

Cardigan MP Pat Binns says Islanders need more information about fixed link proposals than Federal Minister of Public Works Stewart McInnes is initially prepared to let out.

Mr Binns cautions that, "although certain details like costings that could jeopardize competitors' investments in their proposal bids should be kept private until one is chosen, other information could be made public."

Mr Binns specified that he and perhaps other Islanders might want to study:

1)"A physical description of each proposal."

2)"Cost benefits of each project to PEI such as the percentage of local goods and services to be used by contractors, and the number of jobs created for Islanders. The content of local participation."

3)"Where the financing for the different projects would come from."

Mr Binns added that Islanders should be aware of all proposals not long after the submitting deadline of June has passed.

Mr McInnis, on the other hand, has taken a harder stand on releasing information to Islanders. He said only two government advisors appointed by the province should have access to all proposals, and that they could advise the provincial government that concerns of Islanders are met.

To illustrate the tight rein on information he prefers, Mr McInnis said Islanders shouldn't even have any idea how many bridge or tunnel proposals his office will eventually receive.

The federal Public Works Minister added that Islanders could offer their opinions after one fixed link proposal, the cheapest one, is chosen by his department.

Many differences!

There are significant differences between the Kalmarsund in Sweden and the Northumberland Strait.

A close study of a report prepared by the contractor of the Oland Bridge across the Sund reveals some interesting facts. AB Skanska Cementgjuteriet of Stockholm, Sweden, sent copies of the report to the Canadian Department of Public Works last year.

The overall length of the Oland bridge is 6,072 meters. This is comprised of three sections, one 801m low-level part built on 23 driven piers 35m apart and approximately 16m high. Another high section, up to 36m is 910 m long has 8 spans, (including the navigation channel 130m wide). The third and longest, another low level section averages 16m high, 124 spans 35m apart and 4,361m long.

The number of support pillars is considerably more than planned for the PEI link. Two natural islands support either end of the highest portion of the bridge.

The minimum specifications set by the DPW for a bridge across the 13km Northumberland Strait site are:

No more than 45 support piers in entire length, distance between piers no less than 273m, a single navigation channel 185m wide and 50m high. Figures from DPW's Initial Environmental Evaluation and factored into all preliminary consultant studies.

Kalmarsund's maximum water depth is 12m through the navigation channel, the average depth of the rest of the Sund is 5m.

The average depth along the Northumberland site is approx. 20m with the deepest area being nearly 30m deep.

The Oland bridge employed a maximum of 170 workers during 4 years of construction. The average number of workers years 1968-72 was 47,102,141,130 and 60 respectively.

DPW estimates 7,000 person years of work on the Strait crossing with a maximum of 2,000 workers on site. Five completion time.

No substantial socio-economic or environmental studies preceeded the building of the Oland bridge. No substantial traffic flow, economic or social impact studies have followed construction, although general information base exists.

Replacement cost for Oland bridge in 1988 Canadian dollars, $150 million.

Projected cost of Northumberland Strait crossing, (by DPW), $700 million 1988 Canadian dollars.

Onta
ques

BY JOHN GRACEY

A competitor to
in Toronto said
ment's statement tha
step in to buy Gemini
Island growers is
Bill Malisch, th
Sure-Way Brokers Lt
and his partners
that the P.E.I.
would buy Gemini
it could own Mac
Hughes the potato
the company.

"We were intereste
Gemini ourselves,"
"But we turned th
the deal. And belie
a lot of money up her
purchase like that."

Mr Malisch al
MacKay and Hughes
80 per cent of the
P.E.I. potatoes in
said his company
the number of P.E.I.

Producers won't benefit fron

FIXED LINK ENVIRONMENTAL IMPACT STUDY

DATE: MARCH 1990

SUBMISSION: MICHAEL R. NICHOLSON, Director, Red Clay Construction Inc.
IRIS, PRINCE EDWARD ISLAND

Members the Commission, friends and neighbours,

The state of our Island environment is a as fragile as any on the face of the earth. Major development brings with it the risk of major environmental damage. Major environmental damage can manifest itself in complex and unpredictable ways.

I believe we face a number of questions that must be conclusively answered before any fixed connection with the mainland is considered.

RESOURCES, NATURAL

What will the effect of such severe site preparation in the immediate area of construction be on the immediate area of the land, the water and the seabed?

Will large industry converge on the Island stretching our resources to unsustainable limits? In the near future two new potato plants will begin operations here. The effect of these plants will be noticed and hopefully controlled, but how much more large industry will our water table support?

Will the ecosystem of this island sustain possible large increases in population?

How will communities that are at the limits of water and land availability stretch these resources to accommodate more homes for more people?

Will part-time residents and an increased number of tourists be conscientious custodians of our environment?

ECONOMIC IMPACT

Will land prices become as inflated as elsewhere in the nation?

Will ownership of land pass out of the hands of resident Islanders at a greater rate than is already happening? and will access to most beaches disappear?

A large number of Islanders take frequent trips to Moncton and Halifax to shop. Will Island consumers find it even more attractive to shop off Island with a fixed crossing at their disposal?

Will the need for a fixed crossing for sales and professional people be as necessary in the age of telecommunication computer links and improved air travel?

If private enterprise will build and own a link, what price level becomes "profitable"as a fare to cross?
and if $30 is not profitable because crossings were down in a given year, what will fares be the next year?

What controls, if any, will their be on crossing price, or does The Link become another "public utility" subject to regular reviews of its price structure?

Will the developers and citizens who want more, faster really get it? or will a link simply rob us of our uniqueness and make no particular difference economically?

MISCELLANEOUS CONCERNS

Will a fixed link be a more dependable form of transit to the mainland than the ferry system?

Will time delays due to weather and/or repairs require a back-up crossing system? Perhaps a ferry?

Will the wonderful sense of anticipation of the tourist as he or she approaches the red cliffs by boat be lost forever beneath the avarice of developers wanting more, faster?

How many vehicles will blow off a bridge before wind guidelines for crossings are established?

Will anyone here undertake to ride a bicycle over such a bridge or through such a tunnel?

If speed and convenience is of paramount importance, why not build a dedicated ferry system for commercial vehicles and forget the idea of a fixed crossing.

Why are we going through this exercise of reviewing such a project when so many questions remain unanswered?

Thank-you all for listening,

Respectfully submitted,

Michael R. Nicholson

FIXED LINK PRESENTATION_____MARCH 20, 1990

To begin with, thank you for an opportunity to at last have official public in-put about our concerns. We have had two years of editorials, letters to the editor, and the rather compromising information put out by Public Works.

I am one of your average, less then daring drivers who doesn't risk being macho when it comes to wielding a vehicle on a winter by-way slicked by ice or drifting with snow. I'm cautious on rain-slicked highways in case of hydroplaning with vision blurred by rain torrents. Then there is fog, of course.

You have been hearing and will be hearing some quite technical presentations from folks who have taken much personal time and energy to do so.

I have decided to be the average lay person who will have to use the fixed link and contend with all the drawbacks and hazards said crossing will present.I will be the average driver who relied on the experts' information and ultimate stamp of approval on the fixed link.

While I could draw up scenarios from several areas of link use, I will focus on having to use the proposed bridge in risky driving conditions.

I drive a small , frontwheel drive car that weaves when a gravel truck passes because it is light as all economy-sized cars are.Most of us already have doubts about the safety factor of frontwheel drive on icy and even slushy snow covered roads.

Now place me on the bridge in a 50 km. wind in freezing rain or slushy snow with this small frontwheel drive vehicle of mine. I can tell you right now that it would be a harrowing drive.

The December 1988 study "Investigations into the Effect of High Winds on Vehicular Traffic" does not address sizes of pasenger cars beyond "two passenger"_---frontwheel drive rearwheel drive?---It does not state what driving conditions are in place either.

The study does not signify if it was done under actual situations while driving or simply information arrived at while the vehicles were held stationary in ferries. It would seem it is the latter. See p.7.

Furthermore, the study does not clarify if the climatic situation were in Florida or in our own northern Northumberland Strait. See p.6.

On pp.8-9 the Study deals with wind at certain heights up to 65 m. What gives me pause is the statement on p.9, "There are no definitive procedures and adjustments typically vary from location to location".

What gives me even more pause is the April 1987 study, Potential for Sea Spray Icing on the Proposed Northumberland Strait Bridge" prepared for Public Works by R.D. Brown/V.R. Swail of the Atmospheric Environment Service. I refer specifically to the latter part of the booklet under the Table 3 section. (Refer to these.)

They actually state that , quote,"there is currently insufficient information available on the characteristics of spray produced by wave-structure impacts to reach any definitive conclusions about the thickness of ice could be expected on the bridge super-structure", unquote.They go on to list reasons why the ice profiles produced by a model are probably and I quote them, "conservative". (Refer to some of these.)

Further, on the last page (just before the several pages on diagrams), they say "further spray icing modelling work on the bridge structure is not recommended until more information is obtained on the characteristics of spray generated by large columns---hopefully, such information may be released by the Norwegians later this year", unquote.

Was this information obtained by Public Works? I would feel that it would be important that they obtain all available information on icing.

Let us go back to me, the average, slightly timid driver of a small, frontwheel drive car, about to travel out of province. It is reasonably moderate in terms of driving conditions east of Charlottetown. I live in Millview. By the time I reach the Borden area the weather has made driving risky. (I use Borden as the link location because there already was an attempt to build a bridge there during the Diefenbaker federal govt. era.)

As we well know, weather can change within a half hour in this region and can vary from "good" to " terrible" within a ten mile radius.

I arrive at the link crossing and see lines of vehicles waiting. They're not waiting for the ferry because the ferry system no longer exists. They are waiting for the safety light to show when it is safe to cross. Of course our vehicles do not have radar systems. So, we wait. In the good ole days a ferry could still navigate by radar.

This brings another question to mind: what type of studies have been done on warning systems? What guidelines will our fixed link be using? Perhaps this one will "tell" us we can cross when driving may still be relatively risky. Remember, we are crossing a vast open expanse in high winds over a high structure.

Perhaps a few hours or even a day later we are allowed to cross. Someone has a flat tire. Or maybe there is an accident. This brings into question whether or not this structure allows for a by-pass so other travellers can continue on?
And how does the accident debris get cleared off? How do the accident victims get attended to? Remember, we are in the middle of a 49 m. high bridge above the sea in a storm. Perhaps there are first aid stations placed strategically along the way.Sound foolish? Perhaps, but what are the feasible emergency alternatives?

To say the least, I will feel very alone and vulnerable travelling that fixed link; rather like driving at night in Northern Canada with the next point of civilization hours away.

Professor M.J. Dadswell in his January 15,1990, supplemental review reinforces my concerns (pp.13-14)

To sum up, I feel there is no guarantee that the link will allow for easier and faster travel to and from this province and certainly there is no guarantee it will be safer.

It is my belief that the ferry system should be in place as an alternative or, more preferably, not be replaced by a fixed link.

Had there been in-depth studies done on the cost and effects of upgrading the present ferry system to meet certain criteria, I would perhaps feel more confident that the fixed link studies done so far by Public Works would be more reliable and that a better-informed decision could be made as to whether or not a fixed link replace the ferry system.

As it is I am not confident that this is so . Since I am one of the people who will have to use the fixed link,if it is built, and since I am also one of the taxpayers of this country I feel I have the right to speak out freely against the proposed project.

Thank you.

Edith Perry
R.R.#1,
Vernon Bridge, P.E.I.
COA 2EO

BRIDGING NORTHUMBERLAND STRAIT

The Unadulterated Costs and Revenues

In the recent 1960's a plan to put a Bridge - Causeway - Tunnel across the Strait was dropped due to costs. Today we recognize that the plan, which at the time attracted much enthusiasm and approval, would have been a bad mistake had it been implemented. I believe bridging the strait today is no less risky for the environment or our economy than it was in the '60s. Similarly, any decision to build or not will not be reached through environmental or economic predictions. It will be made on the basis of costs compared to revenues and little else.

Let us assume the bridge option will only go ahead if financed by private capital.
Let us also assume, for easy figuring, that the project construction cost is one billion dollars. (This figure is still somewhat controversial but I beg your forbearance for it is within the ranges of error in estimates made of other first time megaprojects).

Now let us find realistic figures for usership of the bridge. I ask you to consider traffic research and projections of Fiander-Good Associates, 1987.

Table I. Current Strait Crossings, Vehicular.

	PASSENGER	CAR	TRUCK	TOTAL AUTOS
1986				
Borden	1661900	582800	117400	700200
Wood Is.	530100	178300	19700	198000
1987				
Borden		597370	119748	717118
Wood Is.		182757	20094	202851
1988 Anticipated Both Points		799630	142638	942268
1989 Anticipated Both Points		819620	145490	966110

From the above table it is optimistic to say that all autos traversing the strait by construction start time will approach 1 million per year. I will use that figure to establish revenue sourcing.

First let us simplistically assume that 1 million autos a year for 30 years will pay for the bridge. So dividing

1 billion dollars by 30 million autos gives 33 or 34 dollars per auto. That's not bad compared to present ferry rates. Now if we abandon that simplistc overview and consider that traffic using the Wood Island service, about 1/3 of that using Borden, should not be included and that we have lumped them together; therefore let us reduce the 1 million autos figure by 25% to 750000 per year or 22.5 million in 30 years. This single factor pushes our price per crossing to 44 dollars.

Further refinement of the simplistic facts requires that we give the investor a reasonable return on the investment.

Given the prime interest rate in Canada as a lowest possible return on investment and using three ten year intervals we should expect the following.

Table II. Investment Return in $ millions.

Period	Rate %	Annual	Decade	Principle	Total Cost
1st 3rd	12	120	1200	333	1533
2nd 3rd	12	80	800	333	1133
3rd 3rd	12	40	400	333	733
Total					3399

So the one billion dollar investment has to be budgeted as roughly 3.5 billion if it is to be privately capitalized. Again this is the minimum cost scenario. A slower retirement of the principle or a growing interest rate would rapidly raise the end total.
Now the cost per auto using the bridge can be averaged at $155. Perhaps the most honest expression of the cost per trip over the bridge is to take the first decade figure and leave the second and third decade out as too uncertain for speculation at this time. Then the figure we need is the Total Cost from the first line of Table II. Thus 1533 million for the decade at a usership of the previously established 7.5 million autos for the period gives $204.

Personally speaking I am already discouraged by the prospect of paying over 200 dollars to cross the bridge and another 200 to come back again ! Even counting on some inflation and the GST in the meantime before the bridge can be built this figure is rather daunting. I would certainly curtail my use of the bridge to save money. I suppose others would do the same and the usership would decline forcing the toll per crossing ever higher. My greatest use of the bridge might be a one way trip off the Island.
But first we must consider some costs associated with maintenance and operation of the bridge. Special motorized equipment may be needed and replaced at intervals. Deicing procedures equivalent to aircraft and airport standards may be ordered, using no salt! Parking areas at each end of the bridge could be needed to contain traffic arriving at shutdown times. Food and shelter facilities may need to be kept there for such contingency and costed to bridge operations.
I have yet to read anything in the planning documents that addresses all these matters comprehensively.

In closing I wish to remind the panel that I have laid out a minimum expression of readily anticipated costs which have not been carefully examined in the bridge proposals and feasibility studies; so I call upon you of the review panel to ascertain the costs yourselves and require that they meet common principles for financing a mortgage before you vote to build yourselves a bridge.

I also ask that you keep in mind that the bridge concept is to serve Prince Edward Island and as such is ultimately to be paid for out of the Island economy and no other. The lifeblood of this Island must be strong enough in 130000 persons who live here to carry the burden you are considering loading upon them.

Robert Perry

Members of the panel, friends and neighbours:

I present this brief on behalf of the Environmental Coalition of Prince Edward Island. The prime objective of the group is to promote the conservation and enhancement of the environment, whether it be land, water or air, for the benefit of all living things.

I can not say for certain that a fixed link would be a threat to our land, water or air. No one can see into the future. Public Works Canada is in exactly the same situation. They can not see into the future, either. So why have they been so adamant from the beginning that a fixed link would not put our environment at risk?

People have been subjected to a barrage of publicity, mostly at the expense of taxpayers, maximizing the benefits and downplaying the negative impacts. Those who oppose the fixed link have been branded as everything from romantics, nay-sayers who use insidious tactics and special-interest promoters who adopt the camouflage of environmental concern. My response to Tom McMillan, Roy Riddlington and others who feel that only their concerns are genuine is that they are mistaken. Environmental concerns over the fixed link are very real.

The panel has been asked by others to consider its mandate in the light of the plebescite results, where 60 per cent of the voters supported a fixed link. As I'm sure you're aware, this would be a grave mistake. Only 65 per cent of eligible Islanders voted, an extremely low turnout. And many factors heavily influenced the vote:

1) The timing of the plebescite
2) The heavy publicity campaign of Public Works Canada
3) The advertising campaign of Islanders for a Better Tomorrow that assured us "We are not voting for a bridge or a tunnel. We are voting for proposals to be developed."
4) The fact that the many Islanders would not have voted yes if they knew that a tunnel wasn't in the running

It amazes me that with a project of this scope, there was a time when a full panel review was seen as just a stalling tactic for those opposed to the link. I would like to point out that this panel review is the only one ever held where the hearings dealt with a generic environmental impact assessment, instead of an assessment of a specific plan. We really do not know exactly what the plans are and what the costs will be.

Until recently, all the consultants were chosen by the proponent, Public Works Canada. While it would be nice to have faith in all consultants and engineers, from past experience I have found that you can find a consultant to support almost any side of an issue. Intervenor funding that would have allowed people the resources to hire independent experts was refused, so it was left to those concerned about the fixed link to pour over document after document, trying to analyse the contents and come up with their own opinions. These opinions were often dismissed as unscientific. But strangely enough, many scientists have supported those claims.

Here's what Dr. David Suzuki has to say. "Scientists don't really know what will happen to the Northumberland Strait if a bridge is built. We are enormously ignorant of these ecosystems. The benefits of a fixed link don't measure up to the possible environmental consequences".

Other government departments, using their own experts, also have raised concerns very similar to those "camouflaged environmentalists". Environment Canada reviewed the project's environmental assessment, and published their report last month. Regarding the question of ice buildup in the Northumberland Strait, the report stated "Environment Canada supports the work done prior to the Bridge Concept Assessment Supplement. However, we believe that the latest work conducted by Public Works...is incomplete and conveys an overly optimistic view of ice jamming potential."

In dealing with bird migration, Environment Canada finds that "The study did not cover spring migration and, in fact, consisted of 4 separate days of observation in September and October. The main fall migration period covers the months of October, November and December. Thus, the field observations are not considered representative of either spring or fall migration patterns."

Long term climate change raised perhaps the most serious concerns with Environment Canada. Their report says that "if the bridge is built to conform to present standards, it may not be adequate to withstand future environmental forces. The situation is further compounded by the supposition that regardless of how well the structure is maintained, it will surely not be in as good condition at year 100 as it was in year 1, or even year 35. Thus, it will be less able to withstand even the loads for which it was designed, let alone loads which may have increased."

They also point out that "the consortium has little reason to worry about the fate of the structure after year 35, having at that point fulfilled its contractual obligations, as well as exhausting the revenue-generating portion of the contract. So the developer's priorities, although perfectly understandable, do not lend themselves to ensuring that the remaining life of the structure is problem free."

They also found that "design implications of mean sea level rise have not been adequately considered. Environment Canada believes this is a critical oversight which could, in the long run, have negative structural consequences." Public Works used one third of a meter when planning for long-term sea level rise, when Atmospheric Environment Service recommends that designs incorporate a minimum mean sea level rise of 1 metre/100 years.

These are just some of the concerns raised by one government department. Fisheries and Oceans put their own experts to work. Among their concerns, in a letter to the panel dated Jan. 31 of this year, they point out the following: "Science is often inadequate for assessing and managing complex systems. These comments apply equally to environmental impact and fisheries stock and assessments. DFO has concerns whether science is capable of providing impact predictions with sufficient confidence that unacceptable effects can be excluded."

What exactly are the risks to our environment? If a bridge is built, it may harm our fish stocks and migratory birds.

Farmers and fishermen could be adversely affected by a delayed spring. Groundwater, specifically in the Borden area, but potentially in other areas of the Island with increased numbers of tourists, would be at risk. We also could find ourselves in the unenviable position of actually finding out what the exact carrying capacity of this Island is. Can we support a 25% increase in tourism? Can our natural areas withstand this increased pressure? Increased tourism will also lead to increased waste generation. Our treatment systems are too often inadequate as it is. Will we put further pressure on our groundwater and consequently our fisheries? Will the increase in traffic lead to a decrease in the quality of our air?

What other risks are we likely to incur? We certainly will be trading a lot of secure, well-paying, year-round jobs for an increase in seasonal, low-paying work in the tourism industry. There is a good chance that the Wood Islands ferry will go, no matter what the government promises. Remember all the promises that have been broken or gone unfulfilled in the past.

The Environmental Coalition feels that the risks are too great for any perceived benefits. Again, I would point out that I can not see in the future. But while environmentalists couldn't predict the nuclear accident at Chernobyl, they knew it was only a matter of time. While conservationists couldn't predict the oil spill from the Exxon Valdez, they also knew it, too, was just a matter of time.

We live in a fragile world, one that is already at risk from pollution and depleted resources. We should do everything in our power to start promoting a healthy environment. Surely, the millions of dollars that have gone into this project already could have been better spent solving the many environmental and social problems we face today.

Thank you for your time,

Gary Schneider, Coordinator
Environmental Coalition of P.E.I.

SUBMISSION TO THE ENVIRONMENTAL ASSESSMENT PANEL
NORTHUMBERLAND STRAIT CROSSING PROJECT

As the members of the Panel have been hearing for months, the construction of a fixed link between P.E.I. and the Mainland might have some economic advantages including the following:

1. It would eliminate travel constraints now imposed by the ferry schedules and the wait at the terminals and it would reduce crossing time.
2. It might reduce transportation costs of Island exports sufficiently to substantially increase their market penetration, thereby providing more long term employment opportunities in the future.
3. It might increase the number of tourist visits to the Island by 145,000 in its first year.
4. It would provide an immense amount of construction employment during the five year construction period

I have spent some time comparing the economic implications of the above advantages of a fixed link with those of improved ferry service. I have done this so that we Islanders can more objectively choose which we prefer. Unfortunately the results of the plebicite in January 1988 are frequently quoted as meaning 60% want the fixed link. However it was carefully and repeatedly stated before the vote by proponents of a fixed link that that plebicite was only to approve further study. There has not yet been a vote based on the facts now available following all the studies. The Decima poll carried out last June would indicate Islanders actually prefer an improved ferry service. So I have endeavoured to study the actual economic impact of each of the above advantages.

1. Elimination of crossing time constraints, waiting and reduced crossing time

The Fiander-Good Study of 1987 uses the following data to compare the Net Present Value to Society Costs of five alternatives including the existing ferry system.

1 Discount rate 10% and 4%.

This is a private enterprise project. The federal subsidy is only a portion of the required cash flow. A more commonly used discount rate in private projects of this nature in recent years would be 15%. Use of this higher discount rate would substantially increase the comparative cost of a fixed link over the existing ferry service.

I fail to understand the assumption in the studies that the annual federal ferry subsidy required is $38 million. The actual subsidy for the Borden service in 1989 was under $21 million and Marine Atlantic's own forecast of the 35 year annual capital and operating subsidy is under $26 million based on 1989 dollars (assuming the ferry service does not have to bear the cost of subsidizing our shipyards). The difference of $12 million per annum would certainly enable Marine Atlantic and Northumberland Ferries to provide an improved ferry service

2 Toll revenues

The fixed link tolls are to be based on an annual increase equivalent to 75% of the increase in the cost of living whereas the ferry tolls in the past have increased in line with the cost of living. Thus it would appear that tolls might not increase as much with a fixed link as with the ferry service. However the construction estimate of $630 million might not now be valid. Additionally on the basis of calculation used in the 1987 Woods-Gordon Financial Analysis of the project, the real cost of government money would be 8% today compared with 4% which that report assumes. Canada bonds maturing in 2014 currently yield 10 3/4% reflecting a real cost of 5 3/4%.

3 Time Saved

The study assumes the average crossing time including delays and waiting time to be 100 minutes. Perhaps that would be the average on the busiest summer weekends but during the remainder of the year, I believe the average elapsed time would be 65 minutes. For most of my trips and those of other frequent automobile travellers, it is 60 minutes or less. Using a reservation system and with another 'Abby-type' ferry, the truckers could also reduce the elapsed time to this average. Thus the time saving comparison of a fixed link should be reduced to 50 minutes if in fact the fixed link crossing time including ticketing could be as little as the 15 minutes used in the study.

I fail to understand the basis of the statement made to you yesterday in Montague that a fixed link would eliminate the one half of a business day we now lose in travel to other Maritime centres. Certainly a year-round ferry service between Wood Islands and a new terminal near Caribou which would eliminate the channel problems and reduce that crossing time by about 15 minutes,.would be of greater benefit to the residents of King's County and eastern P.E.I. than a fixed link.

4 Time Saving Value

Automobile travel. The time saving value is based on the assumption that valuable work cannot be accomplished on the ferry by business travellers From my observations, many business people make valuable use of that time. The report also estimates that vacationers value their time lost on the ferry at 50% of their wages. I have not met many visitors who place a wage cost on their travel time. On the contrary the Smith-Green Tourist document indicates that the vast majority of non Maritime visitors consider the ferry crossing an attraction.

Truck travel. If one compares the reduced operating cost of the truck on the ferry with the increased cost of the drivers wages due to the longer crossing time of 50 minutes, there is very little if any saving. It would certainly be difficult to ascertain much if any difference this would make in the cost of shipping Island products to markets in Montreal, Toronto or New England.

2 Increased long term employment benefits

1 Ferry work versus increased tourist and other employment opportunities

The Smith Green Socio-Economic Document indicates that the loss of several hundred ferry worker jobs would be partially offset by an increase of 230 tourism person years. However ferry employment is largely year round whereas the present pattern of tourist industry employment on the Island is highly seasonal. In debates during the past year on the proposed changes in the U.I.C. program, those in the industry have indicated the difficulty of even providing ten weeks of work, let alone twelve. The increased number of visitations are estimated at 145,000 but are these going to increase employment opportunities in other than the peak summer period ?

The P.E.I. Government's Tourism 2000 program is dedicated to increasing the distribution of tourist activity in both time and space. In order to achieve this laudable objective, one should have information on whether a fixed link would be a greater attraction than the ferries to those vacationers who might visit P.E.I. during other than the five or six 'beach' weeks and who would be interested in touring throughout the Province. The only information now available indicates that the ferries are considered a great attraction by this type of visitor. I outlined this in my Tourist comment to you of 20 January, 1990.

Unfortunately I have been unable to find any material which details the tremendous employment benefits frequently attributed to a fixed link. If the cost of shipping P.E.I. goods is not reduced by any perceptible extent to improve their competitive advantage and if the competition of off Island buyers of our real estate causes prices to rise close to mainland levels, an important accomodation cost advantage would be lost to Islanders and this could require an offsetting increase in production costs. Hopefully the P.E.I. Branch of the Canadian Manufacturers Association will provide some facts on the actual benefits. There is no doubt that Islanders would travel more frequently to the mainland and I can understand the strong support given the fixed link by merchants in Moncton and Amherst. However I am puzzled by the silence of P.E.I. merchants and their Chambers of Commerce regarding this increased competition

Previous studies have outlined means of assisting unemployed ferry workers in finding alternative employment, citing the Industrial Adjustment Service of the Department of Employment and Immigration. I chaired one of these IAS committees last autumn because of the closure of a Charlottetown firm employing thirty well trained and competent persons. It is an excellent service but although we contacted over seventy potential employers, we failed to find one replacement job over a period of two and a half months. Hopefully some of those former employees have now found something but the task of finding new long term employment for four hundred and fifty or so displaced ferry workers would overwhelm this service.

3/

3 145,000 more tourist visits

The Smith Green 1989 Tourist Report indicates the need for a balanced utilization of available accomodations in all part of the Province and a more balanced distribution throughout the tourist season. Its contents outline the serious vacancy problems now experienced which make present accomodation facilities very marginal even in the Summerside, Cavendish, Charlottetown triangle. The situation is much more serious outside this confined area. Unfortunately the traditional Maritime market which would likely provide most of a fixed link increase in visitations, is primarily VFR (friends and relatives) and 'day-trippers'. Thus there is no indication of how the fixed link will do more than aggravate the existing economic problems of accomodation by adding 145,000 visitations largely in the short summer season.

The only way an additional 145,000 visitors could provide a sound economic benefit would be if P.E.I. is promoted as a destination for hikers, cyclists, Nordic skiers and similar vacationers who would travel throughout the Island in 'off season. Longer term visitors interested in travel outside the peak season and in exploring new areas are likely to come from more distant points. such as New England, Quebec and Ontario. An Exit survey in 1987 indicates these visitors consider the ferry trip an attraction. There is no information on the impact that a fixed link would have on them. Again I refer to my Tourist Industry comments of 20 January, 1990

As indicated in the long term employment section above, P.E.I. now has a serious seasonal problem in employment without aggravating it by increasing the heavy demands on the summer tourist season which the fixed link would appear to do.

4 Construction Employment

The construction of a fixed link would undoubtedly cause a boom especially in New Brunswick and to a lesser extent in P.E.I. However this type of mega project can also cause severe dislocations in both the short and long term which the Smith-Green Support Document for Question K outlines. Without definite long term economic advantages related to the project, it could do more harm than good.

Extended Disruption of the Fixed Crossing

In addition to the above comments on the economic impact of the fixed crossing in both the short and long term, I am greatly concerned about the potential threat of an extended disruption of the link caused by 'an act of God' or a serious collision or fire. The brief one page answer in the Supplement is considered by Dr. Philip Byer to be"brief and general, but to the point". I wonder if Dr. Byer had any concept of the scale and complexity of traffic volume involved and which I outlined in my submission to you of 20 January. It would seem vital for you to have the details of the Department of Transport's contingency plan before making a decision.

Conclusion

It is difficult to find on the basis of information that I have reviewed how construction of a fixed link would be of long term economic benefit to the Government of Canada or the people of Prince Edward Island. It would make our travel a little more convenient by removing the time constraints of a ferry schedule. However I cannot find specific data to indicate improved long term employment benefits and actually the indications are the reverse, especially if one includes the potential threat to our $100 million fishery and the environment generally.

Prince Edward Island has many features to market in a world which is becoming increasingly congested and polluted. I hope we shall not destroy it by grasping at a short term mega project solution to satisfy our immediate economic concerns.

COMMENT ON ANSWER TO QUESTION J-1
PAGE J-1 OF SUPPLEMENT
POSSIBLE NEGATIVE IMPACTS ON TOURIST INDUSTRY

SUMMARY OF ANSWER:

IN THE EVENT APPROPRIATE ACTION IS NOT TAKEN BY RESPONSIBLE GOVERNMENT AGENCIES AND TOURISM INDUSTRY ASSOCIATIONS, THE ANTICIPATED TOURISM GROWTH COULD HAVE A NEGATIVE IMPACT ON THE INDUSTRY

REPORT OBSERVATIONS

1. 44% of anticipated growth is expected in the seven week peak period of July 5 to August 20.

2. Nova Scotian and New Brunswick visitors make up over 50% of total visits but only 42% of all 'party night' visits. Of these Maritime market visitors, 46% involve VFR(Friend and Relative) accomodation and the majority have already determined their main destination.

3. The Atlantic Trends Survey indicates a particularily negative opinion of access by Nova Scotians who make up 56% of the Northumberland traffic.

4 The ferry service is regarded as an attraction by 71% of all visitiors, 84% of New England visitors and even by 62% of New Brunswick visitors.

5. There is insufficient data on the possible impact of the fixed link on Quebec, Ontario and New England markets.

COMMENTS

1. The past promotion of P.E.I. as a beach destination has resulted in a short season and a marginally economic tourist industry with 60% of the visitors coming during a five to seven week period(ACOA Report.) With the prediction that 44%% of the additional traffic will come in a seven week period, the fixed link will exacerbate this existing P.E.I. Tourist Industry problem of having to cover most of the twelve month cost of its fixed assets in a five to seven week season. It will also continue to be unable to offer employees reasonable employment for more than a few weeks each year.

2. In order to disperse the distribution of the traffic into areas of the Province where low occupancy rates prevail even in the peak season, it appears important for the tourist industry to focus its marketing efforts toward sources of tourists who are interested in new destinations on P.E.I. Because over 50% of the present tourists originate in the Maritimes and most of these have already determined their main destinations, new sources could also help offset the fact that 46% of the present Maritime visitors involve VFR (Friends and Relative) accomodation and many of the remainder make up much of the "day-tripper" traffic.

3. The Federal Government has never provided the additional capacity and improved terminal location required by Northumberland Ferries to meet the standard of service available via Marine Atlantic; hence the Nova Scotia criticism of access.

4. Within a five year period, there was an increase of over 50% in the number in the 'one person travelling alone' visitor category who arrive without a main destination in mind. This type of visitor is also more likely able to travel outside the peak summer season. Visitors coming primarily to visit other than just its beaches could also help build the shoulder seasons and reduce the uneconomic accomodation demands on the five to seven week peak season. Thus there appears to be sound economic growth potential in the new Tourism 2000 direction which states P.E.I. lifestyles, values, heritage and cultural traditions are to be promoted in an effort to encourage a wider distribution of visitors in both time and space.

5 Because the majority of the Maritime visitors have established destinations and are "VFR"or "day-trippers", the new Tourism 2000 direction will need to focus on the more distant markets such as Quebec, Ontario and New England. Data is therefore important on the potential impact of a fixed link on these more distant markets.

20 January,1990

Donald Deacon

COMMENT ON ANSWER TO QUESTION N-4
PAGE N-11 OF SUPPLEMENT
PLANS FOR EXTENDED DISRUPTION OF FIXED LINK

SUMMARY OF ANSWER:

1. IT IS THE RESPONSIBILITY OF THE DEPARTMENT OF TRANSPORT.
2. THE FEDERAL GOVERNMENT IS COMMITTED TO HAVING EMERGENCY SERVICES PROVIDED THAT ARE CONSISTENT WITH THE NEED.

THE SOLUTION -"There will be short term stress and it is not likely the temporary services will be of the same level and quality as the fixed link."

SHORT RUN (until period of disruption is determined)

1. Air Service
2. Recruiting of existing vessels
3. Charter of additional vessels

LONGER RUN SOLUTION

1. Emergency modifications to harbour facilities.
2. Chartering of special purpose vessels for freight, passenger and automobile service.
3. Possibly ice escort service for 2.

COMMENT:

THE DAILY NEED (Average1989)	JULY	DECEMBER	BUSIEST DAY
Passengers	13,135	2,661	21,259
Cars	4,728	1,028	6,289
Trucks	3,648	183	371

Although the reply states that an emergency response plan will be prepared to be activated in case of a major disruption of service, the above answer would indicate a failure to appreciate the following:

1. The scale of volume of traffic flow which would have to be dealt with.
2. The difficulty of obtaining existing ferries to transport freight and vehicles because of their normal duties elsewhere.
3. The need to maintain the existing ferry terminals in operating condition.in order to provide emergency ferry service.
4. Requirement for a major increase in loading and unloading capacity at normal wharfage in Summerside Charlottetown and a port in Nova Scotia and /or New Brunswick. This would not appear feasible in winter.

Because of the serious economic and other consequences of a disruption of the fixed crossing for more than a very few days, a thorough assessment of the Department of Transport's emergency response plan and an analysis of its adequacy.is required in order for your Committee to complete its study. The most realistic and the lowest cost plan would appear to be construction of year round facilities at Wood Islands-Caribou and maintaining at least one ferry in operation there during the winter season. However the Department of Transport may have a more feasible and economicly sound solution than the above plan outlined very briefly by the Department of Public Works on page N11 of the Supplement.

20 January, 1990

Donald M. Deacon

A Submission
to the
Environmental Assessment Review Panel
by the
Gateway Tourist Association

As President of the Gateway Tourist Association, I represent approximately 20 Tourist Operators in the general area of Borden, Carleton Siding, Bedeque, Cape Traverse and Albany.

We, as an Association of business people involved in one of the Island's primary industries, wish to express our support of the fixed link project.

We believe that the fixed link is an idea whose time has come. In fact, it is long overdue. The idea of a fixed crossing has been under discussion at one time or another for nearly a century. A need for Islanders to improve transportation to and from the mainland, to make such access more convenient and to contribute to the success of our primary industries are the principal reasons for our support for the link.

As far as the Island way of life is concerned, that way of life has long been one of trade and commerce with the mainland. We have to sell our agricultural and fisheries products to the mainland markets. We have to bring needed commodities to the Island from the mainland. We can offer great vacations but we have to get the Tourists here in order to successfully capitalize on that opportunity. Simply put, a lot of our living depends on people and products "from away". We can't deny that. It's the "Island way of Life" and any project that makes it easier to deal with that reality will also contribute to the Island way of life. We depend on the mainland; we can't afford to cut ourselves off from it.

One concern we have is with the critism that has been levelled at the project. A lot of it is not constructive and does not contribute useful ideas or alternatives. It just picks at details without much useful purpose. It's something like a marriage which has gone sour, where the spouses pick at each other and nag at each other, without doing anything positive to improve the relationship. We need to do better than that. The fixed link presents us with an opportunity to do better and we can't afford to let it slip through our fingers. The idea is a good one and we shouldn't let that get lost in the technicalities of how it can be built. We are confident the technical people, the designers, the architects and the engineers will be able to build a link that will improve our communications with the mainland without any problems for the environment which cannot be overcome.

We disagree with those who say that the situation can be fixed by way of an improved ferry service. Improving the ferry service is a horse-and-buggy solution. It's trying to deal with a modern transportation problem .. also an access problem .. in an old-fashioned way. We can't afford to attempt a solution to the Island's need for increased contact with the mainland by way of a transportation system that is seriously out-dated.

con't. ..

If Prince Edward Island wants to make the most of it's abilities and resources, we can't afford to play "catch-up ball". We have to go with a progressive solution to our problems that has the potential to put us ahead of the game.

As for the tunnel, we think the idea should be put aside. We think that there are likely to be financial problems with such an idea, because it seems, it's impossible to predict beforehand what the tunnelers might encounter. We also are very concerned about the disposal of the massive amounts of dirt, mud and stone that the digging would produce. We understand that disposal of that material is causing massive problems for the people building the English Channel tunnel and presents a real environmental threat. We think a bridge offers the best opportunity to create a fixed link with as few problems as possible.

In summary, we believe that the residents of Prince Edward Island have to think positively and direct our minds to future potential and possibilities for our econcomy, for our resources and for our people. We have to grow with the times and we cannot let ourselves fall behind our mainland neighbours. To do so would be a real threat to our continued economic prosperity and our social well-being.

We say the time for a fixed link has come and that the way should bemade clear for it to proceed.

Thank you.

Carmen Simmonds

Carmen Simmonds, President

THERESE DAMOUR
FOREST HOUSE
RR 2 ALBERTON PEI
C0B 1B0

25. III. '90

Dr. David H. Barnes
Chairman
Environmental Assessment Review Panel
Ch town

Dear Dr. Barnes,

This is to follow up on my presentation at the hearing held on Thursday this past week at Elmsdale (22. III '90). There was a question I meant to ask the Panel but somehow forgot. In view of the (to me at least) unsatisfactory assessment produced by PWC, especially with in regard to the environment, would there still be time to get a benefit/risk/cost analysis done by an independent non-governmental body of experts working under their own credibility as scientists? I think that we would then get expertise that we can trust.

Thank you for your consideration to that request.

Therese Damour

P.S. By the way I realized after the hearing that I had neglected to sign my brief. Name + address above -

received
March 23/90

1

Environmental Assessment Panel — P.E.I. Fixed Link

The people of St. Louis Area and West Prince realize that environmental considerations must not be left to the experts. Fishermen seem satisfied to have their presentations made through an Island wide organization e.g. Fishermen's Assn. and Truckers have already made their views known. I believe the points addressed on behalf of St. Louis reflect the views of other parts of West Prince.

First, examining the Tunnel

Option, one must look not only at the *lack of negative* environmental impact but also at the *positive* impact a tunnel could have. Aside from the regular Socio-Economic advantages of any fixed link, a tunnel could provide the *fill* needed to expand the abandoned C.N. roadbed and right-of-way into a truck route. This would reduce the cost of upgrading present highways preserving them for local and tourist traffic.

The Bridge Option has had its negative impact exaggerated greatly by those whose self-interest it is to preserve P.E.I. as a kind of

Natural Paradise, possible for artistic purposes, with its people as well as its natural features petrified in time. This quaintness can then be enjoyed by the few, like the Aristocracy dabbling in London Low Life, or by those who have chosen to go back to nature and want to drag everybody with them. In speaking with local fishermen I find no great panic about ice - some even suggest a bridge would break it up sooner - and very little worry about scallop beds, lobsters, moss growth, or spawning areas. The ice comes early or late; it goes early or late, with few discernable long term or even short term effects.

The issue of groundwater has been addressed by environmentalist in a negative, ostrich-like approach. Groundwater goes up and down with wet and dry cycles. On the positive side, as many schoolchildren could tell you, there is a way to increase retention of groundwater and that is reforestation of waste areas and poor farm land. Many more reservoirs could also be built. Another fact, often overlooked, is that one large processing plant uses more water than all the tourists bathing in our ocean put together.

This brings us to the presently existing negative environmental impact of our isolation and economic disadvantages. You are no doubt familiar with the list: High Unemployment, High Seasonal Employment, High Alcoholism Rate, Low Average Incomes, Low Quality Housing, and High School Dropout Rate. We are forever tormented by the statement "Most survive and a few thrive, in spite of the obstacles" — like the Soweto millionaire. It is a significant sign of our economic problems that the Provincial Government is our largest employer.

of mostly seasonal workers and by clever turnover of personnel in mid-season gets twice as many people on the 10-40 cycle. But we all realize the unmentionable: a large percentage of Provincial Government income is Federal Subsidy and an even larger proportion of unemployment benefits is Federal money. On top of that we are saddled with the social disease of Political Patronage. In this West Prince gets the short end of the stick as well because jobs are allotted by electoral district and with as many people as Kings County we have three districts to their five (6 members to 11).

Is this a democratic economic environment?

There is no easy cure for these diseases of the social environment. But all Canadians must work together to reduce the effects on all Canada, including P.E.I.. It has been suggested outside of Ch'town — that P.E.I. might be better off if we gave up the pretense of being a province an spent the money each year on projects sush as the fixed-link an spinoff developments.

To improve our socio-economic environment, barring a long-term drought in the North American breadbasket or an oil-strike on P.E.I. we must utilize our resources efficiently. But there are limits to how much crops we can produce without damaging the environment and to how much we can sell in a competitive market (potatoes, fish, etc). The industry which has the most potential, and utilizes mostly human resources both as producer of service and as market, is Tourism. Because tourism is not highly developed in West Prince, its potential is even greater here and has been recognized as such by the promotional organizations such as West Prin Chamber of Commerce, W.P. Industrial Commission, and West Prince Community Futures to name a few.

For example, recent statistics have shown that a smaller percentag of West Prince tourists are French-Canadian. Yet we sit on the doorstep of a seven million person market in Quebec and New-Brunswick who are much closer than Ontario's eight million. Most Quebeca still spend summer vacations at a rocky beach in Maine. With our large bilingual population in West Prince we could handle a lot of that market. Also, tourist operators will tell you that most tourists are environmentally friendly and routine problems, such as litter, can be handled with a few regulations. I have never heard Cavendish natives wish they didn't have tourists because of litter or their visual pollution for that matter.

Some suggest that tourism is undesirable because it is also seasonal. But we know that the season can be extended with a little effort to develop other activities besides beach oriented ones. Industries, such as crafts, could be planned to operate in the off-season. Since tourism jobs are often students or moonlighting for people with other occupations or small businesses, the income helps to raise total family income. It also provides employment for many other trades such as carpenters, plumbers, electricians, and other service trades.

The environment of Central P.E.I. may need some protection from excesses that were not previously regulated. But we have not approached that point in West Prince yet and should be able to avoid problems by following existing regulations. What we must really worry most about is the lack of threats to the environment!

It might be said that this whole process would be a waste of time if for economic or other unforseen reasons the fixed link did not proceed in spite of its obvious advantages for P.E.I. But protection of and enhancement of our environment will still be importa and this process has helped us to face up to that. We must also face up to practical details of how to then best utilize the Ferry option for the maintenance of present industries and development of touri potential. An expansion of services at Borden, ie. an additional ferry, would tend to increase the overcrowding in Central P.E.I. as would an additional ferry at Wood

Islands, because of its proximity to Ch'town. What must be seen as the most viable option environmentally would be to establish the long suggested West Prince Ferry. In the context of the loss of the S'Side Armed Forces Base, this would be a logical step because would put that region in the path of tourists who would otherwise end up in Cavendish. Summerside, as well as Evangeline and West Prince could more viably invest in luring tourists away from Central P.E.I. When Quebecois from Quebec City and north look at a map they can see that the distance across Northern N.B. to P.E.I. is very short compared to the distance to Maine.

The objection about having to build new docks at West Point can be answered by the fact that additional ferries at Borden woul create a "boat" traffic jam and necessitate building new docks, so why not build new docks where they can have optimum economic impact with minimum, environmenta damage.

In conclusion, I repeat that you must look not only at the negative environmental possibiliti but also the positive possibilities as well. If this were to require another Panel or Royal Commission, I am sure its roster can be filled from the ranks of local underemployed experts on economic adversity. Thank you and God bless your deliberations.

Reg Pendergast
Member, Village Commission
Village of St. Louis, P.E.I.

PRESENTATION
TO
ENVIRONMENT ASSESSMENT PANEL
REVIEWING THE NORTHUMBERLAND STRAIT
CROSSING PROJECT

BY

West Prince Industrial Commission

March 22/90

Mr. Chairman, members of the environmental assessment panel, thank you for allowing the West Prince Industrial Commission the opportunity to present its brief here this evening on the fixed link project.

As an economic development organization here in West Prince, the Commission has a responsibility to pursue and promote opportunities that will serve to strengthen and enhance the economic climate in our area. It is in this regard that the Commission presents its view in support of the hotly debated project.

The Commission adopts the view that a fixed link with the mainland will open up more opportunity for future development for Prince Edward Island. In 1986, some 25% of the labour force in West Prince were unemployed, and there is no substantial evidence that the figure has changed since then. The familiar question arises, how can we develop our economy to provide more jobs for the unemployed? It is naive to expect that there should be more fishermen and more farmers, as the resources which these occupations rely on are steadily depleting or eroding away. The answer to the question has baffled Islanders for years.

The most prominent direction for job creation on P.E.I., now points to the notion of value added products and increased tourism development. To be competetive in both of these industries you must take advantage of every opportunity to control your input costs and make your product easily attainable. A successful fixed link project represents a formidable opportunity for the development of these industries allowing for improved access to major markets and easier access for the tourist to our tourism product.

Development of these industries is consistant with the resources available on Prince Edward Island . The Commission holds that through structured and controlled planning, positive results can be obtained in the creation of more job opportunities, with minimal effects to the environment and strengthening of the quality of life on P.E.I. Improved access to and from the mainland is an integral component to the future growth of these industries and the Commission endorses the project, to the extent that all environmental concerns have been explored thoroughly.

Thank you once again Mr Chairman,for the opportunity to present our brief. We trust that the deliberations of the panel will result in a report that will recognize the fixed link project as a positive opportunity for P.E.I.

WRITTEN SUBMISSION
TO
ENVIRONMENTAL ASSESSMENT
PANEL REVIEW
PUBLIC HEARINGS
ELMSDALE, P.E.I.

MARCH 22,1990

Presented by: John Cudmore
President
West Prince Tourist
Association
PO Box 399
OLeary PEI
C0B 1V0

The West Prince Tourist Association is a volunteer Association comprised of West Prince Tourism Operators from Tyne Valley to Tignish. Our Association has been very active in promoting West Prince as a Travel Destination. Activities that relate to this include attendence at major trade shows, Island wide promotion, lobbying for Tourism Development and educating the immediate areas that the Tourist Dollar is very important.

The Association welcomes the opportunity to speak to the Environmental assessment Review Panel this evening. I would also like to express our pleasure in having a representative from West Prince on the Board, Thank you for your participation Carol.

Our Association supports the construction of the fixed link and we feel it would be a tremendous boost to the economy of our area. More specifically the Tourism Industry in our area would be a major benefactor.

However, we are not giving "carte blanche" to the construction. We do have some reservations with construction first plan later mentality.

[illegible] areas, even here on the Island that [illegible] check balances on rapid growth. [illegible] at an additional 125,000 tourists [illegible]

The additional Tourists and anticipated five to ten million dollars in expenditures may lead to development by chance attitude on the part of the Industry. We are not trying to stem the entrepreneurial spirit but only to recommend that Tourism Development planning be done prior to the anticipated increase in visitors. This planning should incorporate ways and means of distributing tourists throughout the province. Facility inventories should be conducted and financial incentives be given to areas that do not already have adequate capacities to meet the increases.

West Prince is at an opportune time to have well planned Tourism Development. Our existing tourism plant is growing albeit slowly. However, we do have room for growth and ability to accommodate considerable increases in tourist traffic. The roadways are the only means of bringing tourists to the Western end of the Province.

The estimated 25 percent increase in passenger traffic and 5 percent in truck traffic will certainly put considerable stress on our roadways. (2) Consideration must be given to maintaining a high standard of road maintenance for this additional traffic.

Our tourist [illegible] and natural beauty of our area. Careful consideration must be given to the environmental impact on our shores, birdlife and the area as a whole.

We again express our support for the construction of the fixed link but in concert with regional planning incorporating tourist infrastructure development, road construction and maintenance and environment impact awareness.

Thank you.

1. Strait Facts - Public Works Canada, October '87 #5
2. IBID - November/December '88 #13

- MR. CHAIRMAN
- PANEL MEMBERS
- LADIES & GENTLEMEN:

THANK YOU FOR THE OPPORTUNITY TO ADDRESS THE ISSUE BEFORE US. THIS IS AN ISSUE THAT HAS BEEN DEBATED SINCE 1885 WHEN GEORGE HOWLAN, A DISTINGUISHED POLITICIAN, EXPRESSED STRONG SUPPORT FOR SOME TYPE OF A LINK. AS A NOTE OF INTEREST, THE COMMUNITY OF HOWLAN, NOT FAR FROM HERE, IS NAMED AFTER MR. HOWLAN.

I HAVE STUDIED A NUMBER OF THE REPORTS ON THIS SUBJECT, I HAVE HEARD PEOPLE SPEAK FOR AND AGAINST. MY EVALUATION HAS LED ME TO SUPPORT THE FIXED LINK PROJECT FOR A VARIETY OF REASONS WHICH I WILL HIGHLIGHT.

A. PEI HAS ALWAYS BEEN A SO-CALLED HAVE NOT PROVINCE - HAS THE SECOND HIGHEST UNEMPLOYMENT RATE IN CANADA PARTIALLY DUE TO LACK OF INDUSTRY AND OUR DEPENDENCE ON THE PRIMARY INDUSTRIES OF FARMING, FISHING AND TOURISM WHICH ARE SEASONAL EMPLOYERS.

1. MY OPINION IS MORE INDUSTRY WILL BE ATTRACTED TO PEI IF TRANSPORTATION ON AND OFF THE ISLAND IS ENHANCED WITH A FIXED LINK. I SYMPATHIZE WITH THE FERRY WORKERS WHO WOULD LOSE THEIR JOBS IN 5 YEARS IF THE LINK WAS BUILT. I UNDERSTAND AND SUPPORT AN EARLY RETIREMENT PACKAGE FOR LONG TIME EMPLOYEES AND I SAY WHO WOULD NOT WANT TO TAKE EARLY RETIREMENT IF THE PACKAGE WAS A GOOD ONE? IT IS MY UNDERSTANDING THAT THE EMPLOYEES NOT READY FOR EARLY RETIREMENT COULD BE GIVEN FIRST OPPORTUNITY AT NEW JOBS ON THE PROJECT DURING CONSTRUCTION AND AFTER ITS COMPLETION. I THINK IN ONE WAY IT IS FORTUNATE THE EMPLOYEES HAVE A STRONG UNION THAT CAN NEGOTIATE SUCH THINGS AS EARLY RETIREMENT, 1ST CHOICE AT NEW JOBS AND SEVERANCE PACKAGES.

CONT'D ..../2

B. TOURISM IS THE 3RD LARGEST ISLAND INDUSTRY - A FIXED LINK WILL INCREASE TOURISM ON PEI. ONE EARLIER ESTIMATE PREDICTED 125,000 MORE TOURISTS SPENDING BETWEEN 5 AND 10 MILLION MORE DOLLARS ANNUALLY.

1. THE ISLAND ECONOMY WILL BE BOLSTERED AS REVENUES INCREASE CAUSING ADDITIONAL JOBS, WHICH WILL LEAD TO INCREASED DISPOSABLE INCOME - ALL FUELLING THE ISLAND ECONOMY.

C. IT IS MY CONCLUSION THAT THERE WOULD BE NO SIGNIFICANT ENVIRONMENTAL IMPACT. THERE HAVE BEEN NUMEROUS STUDIES COMPLETED WHICH ALL SUPPORT THIS STATEMENT.

D. THERE IS NO EVIDENCE THAT THE FISHERY WILL BE AFFECTED. THE ICE BREAKUP COULD BE ENHANCED AS THE ICE WOULD TEND TO BREAK AS IT COMES IN CONTACT WITH THE BRIDGE PILONS. THERE IS ALSO EVIDENCE FROM OTHER BRIDGE PROJECTS THAT FISH HABITATS MAY BE FORMED AT THE BASE OF THESE PILONS FURTHER ENHANCING, NOT HINDERING THE FISHERY.

E. FROM A PERSONAL PERSPECTIVE, I FIND THE FERRY REDUCES AN INDIVIDUALS MOBILITY - YOU CANNOT ALWAYS MOVE FROM POINT A TO POINT B AS QUICK AS ONE WOULD LIKE TO,WHICH IN MANY CASES CAUSES ONE TO STAY ON PEI RATHER THAN VISITING HALIFAX ON A LONG WEEKEND. HOW MANY OF US HERE TONIGHT HAVE SAT IN LINE UPS?

- HOW MANY HAVE JUST MISSED GETTING ON?
- THERE MUST BE A FASTER MORE EFFICIENT SYSTEM.

CONT'D ..../3

F. FROM A BUSINESS POINT OF VIEW, I'M INVOLVED IN THE POTATO PACKING INDUSTRY AS WELL AS FARMING. THERE IS DEFINITELY ADDITIONAL COSTS ASSOCIATED WITH FREIGHT MOVING TO AND FROM PEI. CONSIDER THE FOLLOWING:

1. AGRICULTURE IS THE MOST IMPORTANT INDUSTRY ON PEI AND EMPLOYS DIRECTLY AND INDIRECTLY APPROXIMATELY 26% OF THE ISLAND'S WORKFORCE. ALL THE LIME, FERTILIZER, AND CHEMICALS FOR THE AGRUCULTURAL INDUSTRY HAS TO BE TRUCKED TO PEI AT SIGNIFICANT COSTS TO THE END USER.

2. WE USE ROUGHLY 2000 TRUCKS PER YEAR WITH A WAITING TIME OF ½ HOUR ON EACH SIDE PLUS A 2 HOUR ROUND TRIP FERRY RIDE. THIS GIVES 3 WASTED HOURS PER TRIP AT A COST OF $60.00 PER HOUR. OVER A 1 YEAR PERIOD, THIS TRANSLATES INTO A $360,000 COST. EVEN IF CONSTRUCTION STARTED TODAY, THE COMPLETION IS 5 YEARS AWAY WHICH MEANS $1,800,000 IN ADDITIONAL TRANSPORTATION COSTS TO KEEP A FERRY SYSTEM OPERATING.

G. I HEAR THOSE OPPOSED TO A FIXED LINK SAY IT WILL AFFECT OUR ISLAND WAY OF LIFE. I AGREE IT WILL AFFECT OUR WAY OF LIFE BUT IN A VERY POSITIVE MANNER --

- I FEEL UNEMPLOYMENT WILL DECREASE - AS JOBS WILL BE CREATED DURING CONSTRUCTION AND ONCE THE MESSAGE WAS OUT THAT A LINK WAS COMING, I FEEL INDUSTRY WILL BE SPURRED ON TO CREATE JOBS WHILE TOURISM WILL BE GEARING UP FOR ADDITIONAL BUSINESS.
- I FEEL THERE WOULD BE ADDITIONAL OFF ISLAND INVESTMENT SHOULD SUCH A LINK BE BUILT.

CONT'D ..../4

- THE RAILWAY WAS A WAY OF LIFE HERE ON PEI AS WELL BUT ITS NOW GONE AND MOST HAVE FORGOTTEN ABOUT IT. EMPLOYEES RETIRED OR MOVED INTO NEW JOBS AND WE ARE STILL EXISTING WITHOUT THE RAILWAY.

A LOT OF OUR POTATOES ARE SOLD IN THE BOSTON, NEW YORK AND PHILADELPHIA MARKETS WHERE COMPETITION IS FIERCE. THE MAIN MARKET IN EACH OF THESE CENTRES OPENS AT MIDNIGHT - IF YOUR PRODUCT IS LATE YOUR RECEIVER COULD LOSE THE BUSINESS FOR THAT NIGHT CAUSING HIM TO BE A VERY UPSET CUSTOMER PLUS UNDOUBTEDLY THE TRUCK DRIVER MAY NOT BE UNLOADED UNTIL THE NEXT DAY. WE NEED A SYSTEM WE CAN DEPEND ON. LAST YEAR A MAJOR SUPERMARKET CHAIN IN PHILADELPHIA PLANNED A WEEKEND PROMOTION OF PEI POTATOES. THE FERRIES WERE HELD UP DUE TO WIND FOR TWO DAYS AND THE PEI POTATO PROMOTION BECAME A NEW BRUNSWICK POTATO PROMOTION IN PHILADELPHIA. THIS COSTS EVERYONE AND IN ADDITION YOU HAVE A VERY DISSATISFIED CUSTOMER AND ONE WHO WILL BE HARD TO GET BACK IF NEW BRUNSWICK HAS DONE THE JOB WE FIRST SET OUT TO AND COULDN'T.

H. THE MAJORITY OF ISLANDERS SPOKE ON THIS ISSUE IN A REFERENDUM -- THEY SAID YES TO A FIXED LINK - BASED ON THE STUDIES ETC. WHICH WERE AVAILABLE AT THE TIME. NOW ADDITIONAL STUDIES HAVE BEEN COMPLETED WITH SIMILAR FINDINGS -- THE TIME HAS COME TO MOVE ON WITH THIS PROJECT.

WARREN ELLIS
P. O. BOX 366
O'LEARY, PEI
COB 1V0
859-3560

Volume

2

ENVIRONMENTAL ASSESSMENT PANEL
REVIEWING THE
NORTHUMBERLAND STRAIT CROSSING PROJECT

COMPILATION OF SUBMISSIONS RECEIVED PRIOR TO AND DURING FINAL PUBLIC HEARINGS HELD TO DISCUSS THE NORTHUMBERLAND STRAIT CROSSING PROJECT

VOLUME 2

APRIL 1990

ENVIRONMENTAL ASSESSMENT PANEL
REVIEWING THE
NORTHUMBERLAND STRAIT CROSSING PROJECT

COMPILATION OF SUBMISSIONS RECEIVED PRIOR TO AND DURING FINAL PUBLIC HEARINGS HELD TO DISCUSS THE NORTHUMBERLAND STRAIT CROSSING PROJECT

VOLUME 2

APRIL 1990

VOLUME 2

TABLE OF CONTENTS

COMPILATION OF SUBMISSIONS RECEIVED PRIOR TO AND DURING FINAL PUBLIC HEARINGS HELD TO DISCUSS THE NORTHUMBERLAND STRAIT CROSSING PROJECT

1. Betty Howatt, 9 pgs.
2. Summerside Waterfront Development Corporation - Wayne Carew, 4 pgs.
3. Walter Bethell, 1 pg.
4. Sally Hooff, 5 pgs.
5. Cavendish Farms - Tony Mayer, 3 pgs.
6. Midland Transport Limited - Eldon Shorey, 1 pg.
7. Institute of Island Studies -Ian MacDonald and Ian McQuarrie, 16 pgs.
8. Tourism Association of P.E.I. - Jim Larkin and Grant McRae, 6 pgs.
9. Roy Ridlington, 14 pgs.
10. Greater Charlottetown Area Chamber of Commerce - Gary MacLeod, 13 pgs.
11.
    a. Environment Canada - Jim Volmershausen and Alan MacIver, 15 pgs.
    b. Environment Canada, 15 pgs.
    c. Environment Canada (Summary of Recommendations), 5 pgs.
12. Hon. Robert Morrisey - Minister of Industry for P.E.I., 7 pgs.
13. Jean S. Klewin, 14 pgs.
14. Marine Atlantic - Murray Ryder, 24 pgs.
15. Thomas W. Klewin, 13 pgs.
16. Atlantic Provinces Transportation Commission, 6 pgs.
17. Canadian Manufactures' Association - Gretha Turner and Chuck Hickey, 11 pgs.
18. Cumberland Development Authority - Jim Stanley, 6 pgs.
19. P.E.I. Road Builders Association - Roger Perry, 5 pgs.
20. James MacNutt, 19 pgs.
21. Energy, Mines and Resources - Ron Edwards and Gordon Fader, 7 pgs.
22. Mary M. McGeoghegan, 10 pgs.
23. Construction Association of N.B. - Bruce H. Daniel, 1 pg.
24. P.E.I. Restaurant and Food Services Association - Don Cudmore, 6 pgs.
25. Construction Association of P.E.I. - Francis Reid, 7 pgs.
26. Dan R. Jenkins, 5 pgs.
27. Social Action Commission - Mary Boyd, 11 pgs.

A BRIEF TO THE ENVIRONMENT ASSESSMENT REVIEW PANEL, MARCH, 1990

presented by

BETTY HOWATT, TRYON, P.E.I.

In March of 1989, the Queen stated in her annual Commonwealth Day message, "A concern for the resources we share in common means partnership not only across the oceans but also between generations. A recognition of what our predecessors have bequeathed to us increases our responsibility to transmit these things unspoilt to the future inhabitants of our planet.

Our concern to safe guard long-term prospects for our children and their children does not conflict at all with the pressing need to come to grips with the problems of the present, like poverty, illiteracy, disease, unemployment and underdevelopment."

Those of us who are questioning the construction of a bridge from the mainland to P.E.I. wish to ensure that the legacy we would like to leave our descendants will not be jeopardized by the very powerful vision of millions of dollars in short term gain, a gain that will only be for a small segment of the population.

When the Link Plebiscite was called, there was insufficient time allowed to present to the general Public what meagre information which was available. Furthermore, the question did not allow the supporters of a tunnel to properly express their wishes. If a Plebiscite were held today with the question, "Do you wish to have a bridge across the Strait?" the answer would be a resounding NO!

..../2

When it came to a matter of acquiring more information about the project,we found that the Government Department which,ostensibly is to work on behalf of the Public,that Department becomes a proponent,an apologist and a propagandist for private developers; it has thus become a Department of Private Works and consequently the studies it has presented have become suspect.

Computer people in their language use the term"GIGO",meaning garbage in,garbage out.In the case of these studies I submit a new term,"BIBO;" bias in,bias out.

D.P.W. (translate the "P"as you wish) has spent millions of public dollars to present a case for private developers, and expect us to accept their information without question.No doubt they have had "experts" working on their behalf and no doubt they are wondering by what authority we question the findings presented.

During the 1st century B.C. there lived in Rome,Marcus Tullius Cicero,a lawgiver and statesman who said"Wisdom is based on knowledge but knowledge is not always wisdom.It is no paradox.There is intuitive knowledge, the source of wisdom.And there is objective knowledge, which is a collection of irrelevant facts.The man of wisdom is slow to give opinion,for he must sort out the intangibles.The man who has only knowledge is very swift in his judgements,for he does not recognize and does not see the vast imponderable forces which operate in the world."

Many of the questions about a bridge deal with those"vast imponderable forces" and our intuitive knowledge tells us we should be prepared to accept as much time as needed to try to answer the questions.

.../3

Again, in the matter of the information made available by D.P.W., I thought a great deal, trying to find a word that would describe it. Is it mis-information? Perhaps dis-information? Or merely half-truths? As an example in this latter category, I refer to the statements regarding employment during construction. The latest studies say there will be 10,000 person years of employment (the earlier ones gave 7,500). But what is not said is that during the proposed pay-back period there will be a net loss to the area of more than 10,000 person years as represented by out-of-work Marine Atlantic employees.

But wait. I did not include in the loss column the numbers of fishermen, fish buyers, fish plant workers who will have no employment during the construction period, and the possibility that such losses would continue into the future.

The fishery and its fate pose many of those imponderables mentioned earlier.

At present the Northumberland Strait fishery is one bright spot in an otherwise bleak east-coast fishery. Yet a bridge would put this completely at risk, even after completion; through possible changes in water temperature (because of ice retention), or changes in location or forces of currents, changes induced by huge piers across the Strait.

The possibility of climate changes (due to ice) are a concern to my farming mind, they pose as great a problem for the fishermen, and computer models based on a few years of study do little to alleviate the concern. How many variables were factored in to the model? Nature can make serious changes without giving us warning.

.../4

After several years of very light ice in the Gulf of St.Lawrence, we hear(as of early March)of ice 7 metres thick.Whether anything of this weight will move through the Strait is difficult to predict. Possibilities can be stated,but what is the percentage of error that can be safely accepted?

Changing currents may cause changes in sedimentation rates, which in turn ,have an impact upon bottom feeders and the larval stages of some species.In this Province we are becoming more aware of siltation problems in our fishing streams,in fact there is presently a case before the Courts,dealing with charges against a company for destroying fish habitat.

The D.F.O.submission of January 31,1990 states"D.F.O. has concerns whether science is capable of providing impact predictions with suffucient confidence that unacceptable effects can be excluded." If fisheries people are so concerned,how can a Department with no expertise in these matters say the effects will be negligible?

It has been stated there will be a plan to compensate fishermen for loss of income due to construction.Money cannot compensate one for the loss of livelihood which makes life worth living.

In Mahatma Gandhi's version of the seven deadly sins,the first one is "wealth without work." Any compensation package would not provide wealth but it would be money given without labour,a severe blow to the spirit of people accustomed to working hard for their living.

There are more of Gandhi's list that could apply to the proposed bridge;they are commerce without morality,science without humanity,

.../5

and politics without principle.

One of the earliest maxims learned in Physics class was,"Matter can not be created or destroyed,only changed."The world population is increasing rapidly,putting ever greater pressures on finite matter.It is morally wrong to expend massive amounts of materials on a bridge we do not really need,when those materials could be better used to improve the lives of millions of people,e.g.to re-forest parts of Africa or re-build the sewer systems of large cities like Montreal or Toronto or Vancouver.The proposed bridge is a mega-project for a mini-province,commerce without morality.

There is a very strong possibility that a bridge would cause a marked decline in ferry traffic at the eastern end of this Island, with an accompanying loss in revenues in the tourism sector of Kings county.Is it right to deprive these people of a future,more commerce without morality?

Science without humanity.In the past decade,mankind through its manipulations,has removed 100,000 species from this world.To offset the loss a mere 2,500 hybrids have been developed.It is highly unlikely that anyone set out deliberately to remove a particular species,but by changing natural forces without full knowledge of all the processes involved,unwanted changes occur.How can anyone accurately predict what will happen in the Strait with such a monstrous intrusion as a bridge?.Based on doubtful information,can we afford to take chances with our environment ? Our provincial Environment Minister,in late February stated that the environment must take precedence over jobs.

.../6

The matter of financing a bridge should be of interest to us all. The statement made by politicians and bureaucrats that the construction of the bridge will not cost the public a cent is a blatant mis-representation of the facts,(it doesn't even qualify as a half-truth),for one thing of which we can be sure is that the bills will always come"due and payable". Is a tremendous debt to be added to environmental degredation as a part of the legacy for our grandchildren?

It is interesting to note that a local newspaper,when announcing this set of hearings,referred to the cost of a bridge as $600 million. That paper has,from the beginning,supported a bridge so one can understand why they are so anxious to put a low cost on its choice. Recently a new Fisheries Science building was built in Quebec. Its projected cost was $17 million,its cost at completion was $77 million. If we apply the same rate of cost over-run to the newspaper's figure, it is quite evident there will have to be a real money miracle to bring even interest charges down to the amount of subsidy paid to Marine Atlantic,without considering retirement of principal and on-going maintenance costs.

Initially the statement re financing would have fitted the sin category of "politics without principle",it also fits into"commerce without morality".

Some years ago a visitor to our farm offered to buy the whole property so that he might obtain ownership of an old tree in our house yard(the man is gone from this world;the tree,though not robust,is still with us).We were quite content to continue farming

.../7

so declined the offer.My husband's ancestors settled our land over 200 years ago and it has been in production since.Each year we grow tons of good food,the freshest produce many people have ever had.A bridge will probably put a stop to our farming,my husband and I have already discussed the possibility,for in the past year our assessment rose by 17%.One of the consultant's studies indicated they could not foresee any upward pressure on land values due to a bridge.The reason for their response may be because it is difficult to foresee something which is already occurring.

Good land should be used to produce good food and not be treated as a commodity to be traded like pork bellies and canola oil.At various times this Province has been called the "Million Acre Farm"or again the "Garden of the Gulf".The highest use to which farms and gardens can be put is to provide food for both the body and the spirit.One of my favorite mental images from the Bible comes from a verse in Genesis,where it tells of God walking in the garden in the cool of the day.It has a wonderful sense of healing calm after a hard day's work.

In this world of turmoil there is need forsuch a "Garden" Province to provide much needed healing for the spirit; in years to come it has the possibility to become the most important"product" we can offer.However,should a bridge be built and bring with it the predicted human invasion,there will be little chance of controlling the up-sprouting of"amusements" and "attractions",which,by the way, will find it hard to compete with major amusement parks opened recently both in Nova Scotia and New Brunswick.But more importantly, we shall lose our opportunity to continue being a unique,worthwhile

.../8

place in which to live or visit.

The Construction Industry of P.E.I. is urging that work on a bridge begin very soon,little realizing that the bulk of those person years mentioned earlier will be for workers on the mainland.Common sense dictates that the bulk of the work will be done where materials are more readily available.This of course accounts for the pushing done by mainland politicians,their ridings will experience the most benefit from construction,and little of the long term misery.It is interesting to note,as of March 3,this same Industry has listed at least 14 major projects they have ahead of them.How much is enough?

Let us now consider the employees of Marine Atlantic and their long-suffering families. I have already mentioned the net loss that will follow completion of a bridge.But what of the social consequences, the disruption of families and communities.Summerside Chamber of Commerce is supporting the construction of a bridge,ignoring the fact that the job loss to Borden will be as traumatic as the C.F.B. closure is to Summerside.As well they seem to be forgetting that this is the shopping centre for many of those ferry employees;I have heard a figure of $4 million quoted as the amount presently injected into the Summerside economy by the very people they wish to displace,all because of a mistaken idea that a bridge will bring prosperity.A bridge will also take,take more people more quickly to stores in Moncton,Saint John and Halifax,for Summerside merchants cannot provide as wide a range of of goods as advertised there.

For nearly three years Marine Atlantic employees and the people

.../9

of Borden have lived in an atmosphere of uncertainty,yet they are expected to provide a necessary service with good grace and effeciency. How can we be so cruel to them?

From a book called "The Turning Point" by F.Capra we read,"Work that is built upon false needs or unbecoming appetites is wrong and wasteful.Work that deceives or manipulates,that expolits or degrades is wrong and wasteful.Work that wounds the environment or makes the world ugly is wrong and wasteful.There is no way to redeem such work by enriching it or rationalizing it.It is wrong and wasteful." That is the way I feel about the proposed bridge.

An improved ferry service with load-and-go capability during the peak season,and a computerized reservation system at other periods has not been given the attention it deserves as a transportation option more in scale with this beautiful Province of ours.

I shall close with a quotation from a narrative poem called"I Am An Island That Dreams",by Elaine Harrison.

.... But I am an Island and
I am the small farm and
the fishing village and
the country road-----

And I am the woods and fields
and sandy beaches for
my people to roam over
I am an Island and
I have room enough and to spare
but not for greed and oppression.

Presentation by
The Summerside Waterfront Development Corporation
To the Panel That is Evaluating
The Environmental Impact of the Proposed Fixed Crossing
Between Prince Edward Island and New Brunswick

March 23, 1990

The Summerside Waterfront Development Corporation (S.W.D.C.) wishes to thank the panel for the opportunity to present our submission. The S.W.D.C. is a Corporation whose general objectives are to enhance the Town of Summerside and area as a growing service and tourism centre and to help develop the area as an attractive place to live, work and to establish enterprise. The S.W.D.C. continues to pursue these objectives in conjunction with local business, local groups and associations with significant support from all three levels of Government. The Fixed Link Project, therefore, is of great concern to the Corporation.

Realizing that the environmental aspect of the fixed crossing project is probably the most controversial part of the entire feasibility study, the December 15 Supplement to the Bridge Concept Assessment is a most complete evaluation of this aspect and it's findings are most conclusive in supporting the implementation of construction of the fixed link. Allow us to highlight some of the findings contained in the report of December 15, 1989 which we feel influences our position.

- the impact on marine animals and marine plant population from the placement of a bridge in the Northumberland Strait will be minimal.

- changes in tides and currents in the Strait area will not be affected nor will there be any change in the formation or break-up of ice.
- the construction of the fixed crossing would have a very low environmental consequence relating to accidental spills of petrochemicals or other hazardous materials.
- effects on ground water supply and quality, also, effects from dredging and soil disposal have shown that the impact on the environment will be minimal, with both aspects showing no detrimental effects.
- physical interference with the commercial fisheries will be effected to a small degree during the five year construction period of the crossing, however, the elimination of the navigation area due to the ferry operation would result in an additional section of the Strait being available for the fisheries upon completion of the project.
- effects on tourism and associated development given appropriate planning by government and industry would result in the fixed crossing having a most positive impact on this important industry, with an estimated 145,000 new visitors to P.E.I. during the immediate post-construction phase of the project.
- improved transportation efficiency relating to a fixed link along the lines of cost, reliability and travel time would have a positive effect on the social and economic well being of persons and businesses throughout the Island.

- statistics from the Atlantic Province Transportation Commission shows that the trucking industry alone would save $5 to $8 million annually as a result of reduced crossing time.
- it is expected that a fixed crossing will have a positive net benefit to PEI industry, primarily as a result of improved reliability and timeliness of access to mainland markets and reduced input costs. Increased competition resulting from improved access to PEI on the part of mainland producers may also prove beneficial to PEI consumers.
- a major benefit to the PEI economy will occur during the construction period with a high demand for skilled and unskilled workers. As well, there would be an increased demand for additional workers in the service sector.

In summary, the December 15 Bridge Concept Assessment has substantiated the major socio-economic benefits that will accrue to PEI. These benefits will occur in all sectors of our economy, therefore, the S.W.D.C. is in favor of a fixed link from N.B. to P.E.I. and supports the bridge concept.

Submitted by,

THE SUMMERSIDE WATERFRONT DEVELOPMENT CORPORATION [illegible] So you want a bridge. Think! Where does it start and where does it end? Would you like to be 200 feet above the Strait in a driving snow or rain storm? The structure would have to ~~have~~ the road surface heated or salted when ice occurs. Salted!! What does ~~that~~ do to metal? Are the bridge footings on bed rock?? How about tides and ice? As for environment and fish forget ~~that~~ who knows.

Think. An updated ferry service from Borden. You must admit at present it is medeocre. And then you have a ferry service from West Point to New Brunswick. Look at the miles it will save. It is rediculous for residents of the Western part of the Island to drive to Borden. This idea would save millions and create a lot of jobs in more then one way. A bridge to me is in the catagory of metric system, Free Trade and Meech Lake. ~~Idiots~~ many will try to confuse the people and like Barnum said, "A sucker is born every minute." Don't be confused in your thinking. See what our appointed brains are doing to C.F.B. Summerside

Friday March 23, 1990

Submission to
Members of the Environmental Assessment Panel
reviewing the Northumberland Strait Crossing Project

from Sally Hooff,
Malpeque,P.E.I.

Members of the Review Panel, ladies and gentlemen, thank you for the opportunity to speak before you. I am grateful also for the system which created such a panel. It is highly regrettable that the environmental hearings were not held first and foremost and that the politicians have played with Islanders - and with the construction companies - for so long. But at least that was not water under a bridge. I wish to present to you another plea for the rejection of a fixed link with the mainland. I hope to see a flexible link, up-to-date, abreast with advancing technology and not frozen in time - and in the water - as a bridge would be.

It is, unfortunately, impossible to address the problems involved in this debate without reference to politics. When we look back to 1987 we have to ask whether Islanders had been lobbying for a bridge to the mainland at that time. Were farmers agitating for a bridge? Was TAIPEI telling government then that the construction of a link was critical for the growth of the tourism industry? No, but these questions and many others have been debated furiously *since* the Federal Minister of the Environment came up with *this* amazing idea. It seemed to start with that bridge Mr. MacMillan saw in Japan. The scheme also fitted perfectly the desire of our present Federal government to rid itself of certain historic obligations which it has owed Prince Edward Island since Confederation.

It continued as a political rather than as a technical question because the people of the Island were too polite to say, "Thanks, but no thanks". After all, an Environment Minister might know some things the rest of us didn't know. I do believe that people were initially dazzled and flattered that someone out there *wanted* to *give* us something. It would eventually be paid for with our tax money, like all government gifts - but, boy, it was exciting, like a new love affair when you are 18 years old, or something like that. It was heady stuff. Our Provincial Government was caught in the classic federal-provincial bind where you have to keep your options open. Remember, it was a bolt from the blue - Conservative blue! - and our provincial leaders had to blush a good Liberal red and play the game.

Now the engineers and construction companies who want to build a link are no more self-serving or ambitious than any other interest group in Canadian industry. Everyone wants to have the opportunity to make money. Everyone wants to have skills appreciated, to be the centre of attention, the envy of fellow professionals; and we don't doubt that there are indeed companies or consortiums who are capable of building a bridge or a tunnel across the Strait. The question is not whether they could; it is whether they should.

So since before the referendum there have been engineering companies, paving companies, cement companies, steel companies, designers etc. all waiting to strut their stuff before the world. But the emperor's new clothes began to show their transparency when people began to consider the stipulation that the link must be expected to last 100 years. Now, at that point, I say with all due respect to the best architects and engineers in the world, at that point we *should* have laughed the whole idea out of court. Why? Not because, as I said, we don't have people capable of building something that could last, but because, when we look back at the advances in technology over the *past* 100 years, why would the population want to be stuck with one type of link, one mode of transportation, and throw away a ferry system which could be updated and changed with every advance in technology over the *next* 100 years? Why would the people of PEI want something which could be a white elephant in 30 years or less?

Even if Public Works has stipulated that a replacement for the ferry service should serve for a century, there is, of course, simply no way to *guarantee* that. The security of any construction designed by *human beings* cannot be guaranteed against winds, ice, tides, storms, earthquakes, and other acts of god - quite apart from human error. One needs only a superficial knowledge of history to know that if things last, they last; if they don't, they don't. The tragedy at the Lions Gate Bridge in Vancouver, or the disaster at Quebec are two examples of human failure in Canadian engineering history. The Forth Railway Bridge in Scotland is as stout today as it was when built in 18 , while the Forth Road Bridge, alongside it, barely 20 years old, is experiencing some embarrassing crumbling. This could be caused by acid rain which any bridge here would be subject to as well.

When we voted in the referendum, however, the tunnel option was being offered. We did not know then that the mysterious inner workings of Public Works was going to pull that option out of the running. The public and the contractors have been wondering since how to call their bluff. Of course, we have to remember that they said they would choose the lowest bid. I asked in a letter to the paper at that time how Public Works could be sure that the lowest bid would produce the safest or the most durable crossing. Even we simple housewives know that the lowest price is no guarantee of quality.

For the sake of argument, at least, let us consider the scenario of a privately built bridge being thrust upon us by the present Federal Government which, I suppose, sees the project as a glamorous provider of short-term, high-paying jobs much more visible and dramatic than the regular replacement of outdated ferries. We hear about that bridge in Japan, as if Japanese waters froze the way the Strait freezes. They don't. (And did you read that the costs of that bridge went so high over budget that people won't pay to drive over it and take the ferry instead! They were smart to hedge their bets and keep the ferry service!) Then there is the Öland Bridge in Sweden where after a few years they now have to rebuild the pillars because of erosion by water which is not as salt as ours. They have a major city for islanders to commute to for work on the mainland. The new bridge in Denmark? Well, an engineer, Mr. Lodge, has dealt with the differing conditions there which I don't need to repeat. Then there's the Channel Tunnel between Britain and France. Those two countries each have populations of over 55 million which probably makes comparisons irrelevant and not helpful for us; but I think it reasonable to point out here that the English who oppose the Channel Tunnel base their fears on a multiplication of what they already see *before* construction: loss of beauty spots and productive farmland for construction of approach roads, increase in noise, vibration, and exhaust fumes from heavy transport trucks, and general stress, both social and physical, on every community between London and the Link. Our family was shocked to see what has happened to once beautiful villages between visits to relatives in 1977 and 1988. It was appalling to see the destruction of small town life, one of the reasons to cause the British to adopt the motto, "Re-think the Link".

I am sure, however, that you, members of the panel, would prefer that we keep our discussions at a local level and debate the project from the evidence of our own experiences and observations. Nobody knows better than Islanders what our weather conditions are - not even Nova Scotians, many of whom seem to be in a big hurry, including that M.P. who has been chirping away in the House of Commons recently, while the matter is under review by this panel and therefore, as it were, *sub judice*. (His anxiety, by the way, should confirm our suspicions about where the original lobbying for a fixed link came from.) Surely the only studies that count are studies made here, and the people who would have to use this proposed bridge are the ones who can tell all the experts in the world that it would be a totally foolhardy venture to drive an automobile over a high bridge across the Northumberland Strait during many days of our fall and our spring as well as of our winter. Please note, I do not say a few days. I say many. I have met no one at all since this debate started who is prepared to say with confidence that an automobile - driven by an average person, not a professional truck driver, of course - could pass safely over such a bridge during most of the days of winter, let us say the same number of days on which the ferries are now able to cross. The same winds, snows, freezing rains, whiteouts, rainstorms and fog conditions which confront drivers on the ground would obviously be exaggerated on a roadway suspended high in the air. We do not need studies for this, only the experience of winter driving in Prince Edward Island.

At this point, when we are asked to welcome a bridge over open sea as a boon and a blessing to the general population, we are forced to consider laughter as a response to the proposition - if we're not weeping at the stupidity of the notion that drivers could be as safe on a bridge as they are on our ferries. There are some gambles that we all take on winter roads, but this is a gamble that the travelling public should *never* be asked to take. People have medical and family emergencies in all four seasons, as well as business commitments. They have to travel and without public transportation it has to be by car. When we contemplate winter driving on a bridge which could go as high as 49 metres above the Strait, I believe we should get down on our knees and thank the powers that be for the safety and security of our excellent ferries; and, while on our knees, let us pray that we *never* be cursed with a bridge as a replacement for the boats.

For the advocates of a fixed link I beg to offer another point to ponder. It's about human beings in an unfamiliar environment, and it may shock many people who have lived on the Island all their lives. I wish that my years of living in Nova Scotia, Ontario, and Quebec had given me enough confidence in megaprojects that I could assure you that the construction period for such a huge project as this would be a time of joy and hope for Islanders. I was in Halifax for the demolition/highrise construction binge of the early '60s. I lived literally on top of construction for a subway station in downtown Montreal. Then my husband and I lived in Ottawa near where the National Arts Centre was being built, plus new roads in all directions, and in Montreal we survived construction of an 8-lane portion of the Trans-Canada at the end of our little residential street. You'll have to believe me that trying to live with the heavy machinery, the racket, the stink, and the real physical danger is quite simply pure hell. It doesn't matter whether we are talking about bridges or tunnels. The stresses are the same. The machinery would be bigger and heavier than you've ever dreamed of. And by the way, they have a little trick of breaking the rules on such projects. They start working earlier and earlier in the morning, then later and later in the evening, until they are going all night in summer.

X as well as the increased danger of accidents

If people living along the main highways of our province think that traffic is increasing now in 1990, and if they find that noise, stink and dust are sometimes hard to take, with heavy truck traffic year round and a summer stream of tourist trafficX then they would have to prepare themselves for more of the same, if the advocates of a fixed link get their way. Two fatal accidents, one at Travellers Rest and one at Bedeque, have brought it home to us very recently that the automobile inevitably gets the worst of it in a collision with a heavy truck. This is not to deny the professional skills of good transport drivers. It's simply a matter of size and scale. And we should beware of optimists who believe that widening our Island roads would solve traffic problems. That is so naïve that it is hard to credit that people might still have confidence in it as a solution. You encourage more traffic, you get it. And we can barely afford to maintain the roads we have!

My last remarks relate to the submissions which you will receive from my fellow workers in those Island businesses which are dependent on tourism. Today we live on a real island, "one of the world's great islands", a place of distinction and individuality, a place where insularity leads to great social strength. This island is romantic, it is exclusive, and its uniqueness is its trump card in tourism.

Part of our uniqueness is something which Nova Scotians and New Brunswickers and even we ourselves often fail to remember when we try to divide up this delicious little pie of an island among the conflicting interests of tourism, agriculture, forestry, and the fishery. We are the only province in Canada which has no wilderness. This is why we have no deer, no bears. There are few places left for animals and birds to escape from us. There is also no "out there", no place to dispose of our wastes. What we throw away is in our neighbour's back yard if it is not in our own.

And why is this? Because we live in the most densely populated province in Canada. We sometimes forget - and the provincial government and the media sometimes forget - that people are living in every corner of this island, even in the forested parts, the swampy parts, and the windswept parts. The majority of us live on farms, or on rural roads, or in small towns and villages, and it is that atmosphere of comfort and hominess, the presence of people everywhere, as much as our beautiful landscape, which makes the Island a desired haven for so many thousands of discriminating tourists.

So, when we are assessing the possible effects of increasing our summer population over what it already is without a bridge, we simply must review some of the environmental problems which face us, the permanent population, right now:-

We are getting serious warnings about our water supply.
We are seeing a proliferation of cottage lots beside ponds, rivers and beaches.
We are seeing various kinds of waste fouling these ponds, rivers, and beaches.
We are seeing reduced numbers of freshwater fish and inshore salt water species.
We are seeing erosion of our topsoil .
We have industrial pollution in Malpeque Bay, the place selected as a wetland refuge for wildlife of international importance.

There are others, but these are surely enough to invite tourism's promoters of a bridge or tunnel, as well as leaders in agriculture and real estate, to pause and reflect on whether we might kill the goose that lays the golden egg. Just how much more pavement would you like? How many more loads can our present highways take? How many more cottages can our shorelines take? How much more cutting can our scattered woodlots survive? How much more stress can our wildlife - animals, birds and fish - withstand? ......and ourselves, the human animals, who are not immune to stress. I suggest to all our Chambers of Commerce and Tourist Associations that they adopt as a motto a line from a popular Joni Mitchell song of a few year ago, "Big Yellow Taxi". Do you remember the one about how they put the trees in a tree museum and "put up a parkin' lot"? The moral, she said, was, "You don't know what you've got till it's gone."

The internal combustion engine itself may be the worst enemy we have to contend with. The consumption of gasoline and diesel fuels is contributing to the production of acid rain all over north America, while we and you, the panel, are juggling with the pros and cons of a project which is designed to result immediately in higher fuel consumption. It could sew us up in an environmental time warp. We would be effectively caged in planned obsolescence. I believe that by pursuing the technology to modernize both of our ferry services, however, the federal government could enable us to develop at a speed which would respect the small scale of all the best institutions of this precious and fragile island.

Lilly Hooff

Malpeque, P.E.I.
C0B 1M0

836-5166

March 1990

LES FERMES
CAVENDISH
FARMS

BRIEF ON THE NORTHUMBERLAND STRAIT
PROPOSED FIXED LINK CROSSING

OVERVIEW

Cavendish Farms is very pleased to present to the Commission reviewing public comments on the proposed Fixed Link Crossing from Prince Edward Island to New Brunswick. It is our Company's position that the proposed Fixed Link Crossing is vital to the future survival of businesses on the Island, specifically those that manufacture products for export off of the Island. We believe that the continued success of our Company will be adversely affected if the Fixed Link is not installed linking Prince Edward Island to the mainland. Cavendish Farms deals in a highly competitive market and must compete with other highly efficient potato processing operations that do not experience the economic inefficiencies for being located on Prince Edward Island.

Cavendish Farms, New Annan, P.O. Box 3500, Summerside, Prince Edward Island C1N 5J5 Phone (902) 836-5555 Fax (902) 836-3299

Not having ready access to the mainland (as would be provided by a Fixed Link Crossing) costs our Company $1 million per year. These costs are incurred in:

- higher freight costs.
- higher supplies and finished goods inventory requirements.
- equipment and material delays.
- excessively high material costs especially for construction materials.
- higher labor costs from mainland contractors.
- higher farm supplies costs (fertilizer, lime, chemicals).
- missed appointments resulting in customer service and delivery problems.
- delays from weather problems.

The above negative cost factors result in higher operating costs which force our Company into decreasing profit margins versus our competitors. We believe that the Fixed Link will have a positive impact on reducing some of these negative cost components and will help Cavendish Farms maintain a more favorable competitive posture in the future. The construction of the Fixed Link is vital to the future viability of our processing operations on Prince Edward Island.

HISTORY

Let us give you a brief history of Cavendish Farms from its inception to the present. The present New Annan facility is a frozen food company situated in the middle of the prime agricultural area of P.E.I. The main purpose of the company is to process potatoes into french fries, formed products, and to process peas; both products for the Retail and Food Service markets, nationally and internationally.

In 1980 the Cavendish Farms name came into existence and since then has expanded sales threefold. In the early years the plant produced french fries during the fall, winter and spring only and shut down each summer because of poor quality raw product. Over the past nine years we have increased production by running the plant twelve months each year, thus supplying our 600(+) employees with close to year-round employment. Sales over the past nine years have tripled in Canada and the U.S., and we are now exporting product to the Carribean, Far East, Japan and the Southeast Rim.

The current New Annan facility processes several hundred million lbs of potatoes annually. The overall direct economic impact to the Island inclusive of all raw materials and labor is in excess of $40 million annually.

BRIEF ON THE NORTHUMBERLAND STRAIT PROPOSED FIXED LINK CROSSING

Midland is a transportation company serving Prince Edward Island, New Brunswick, Nova Scotia, Newfoundland, Quebec, Ontario and 52 states in the U.S.A., with general and temperature controlled goods as well as Petroleum products.

We make 16,000 crossings per year (that's 8000 each way) or an average of 44 crossings per day, 7 days a week.

It takes 7 hours to make a trip from Prince Edward Island to Moncton and return. With a fixed link, we would save 3 hours. Time is money. The extra cost to Midland for each crossing is $40.00. This translates to over $600,000 per year.

Concerning the environment, many trucks are waiting on each side with motors running. The proposed fixed link would eliminate unnecessary emission problems to the environment.

Also, highways would be safer as trucks would not be rushing to meet ferry schedules, particularly during times of heavy traffic such as during the tourist season.

With growth planned for the P.E.I. economy, a fixed link will provide faster service to markets. As well, the P.E.I. business people would be assured of receiving their goods on time all year.

Midland would like to go on record as supporting a fixed link between Prince Edward Island and New Brunswick, which would contribute greatly to the P.E.I. economy and environment.

Eldon Shorey
Midland Transport Limited

MONITORING THE FIXED LINK

An Excerpt from the Report

ENVIRONMENTAL OPPORTUNITIES
FOR PRINCE EDWARD ISLAND

by

James Ramsay

March 27, 1990

INSTITUTE of ISLAND STUDIES

Chapter 2. MONITORING THE FIXED LINK

2.1 Introduction

2.1.1 Objective of the Chapter

This chapter discusses the purpose and need for long-term monitoring of the impact of the fixed link on Prince Edward Island, reviews a number of monitoring techniques, and outlines institutional requirements for implementation of an effective monitoring system.

2.1.2 Chapter Layout

The chapter consists of three major sections:

- The Need for Monitoring.
- Monitoring Methods.
- A Monitoring Framework for PEI.

2.1.3 Key Reports

The key report preceding and setting the context for this study is:

- **Northumberland Strait Crossing Project: Bridge Concept Assessment** (Delcan Corporation and Stone & Webster Ltd. for Public Works Canada, 1989). This report is designed to provide the Review Panel and the public with a summary of the project and the many reports related to it.

A list of Northumberland Strait Crossing Project publications as given in the Bridge Concept Assessment is attached at Annex C. The bibliography from the Generic Initial Environmental Evaluation (P. Lane Associates Ltd. and Washburn & Gillis Associates Ltd., 1988) is attached at Annex D; this covers some of the many relevant reports not directly commissioned by Public Works Canada.

The Bridge Concept Assessment document was submitted to the federal Environmental Assessment and Review (EARP) Panel in May 1989. In August the Panel concluded that the information presented to date by Public Works Canada was not sufficient, and requested further information which will be submitted for public review before the official public hearings on the fixed crossing proposal.

2.2 The Need for Monitoring

2.2.1 What is Monitoring?

"Monitoring is the systematic collection and organisation of information which is to be used in improving the decision-making process; either indirectly by informing the public, or directly as a feedback tool designed for purposes of project management, programme evaluation, or policy development" (Carley, 1985). Put more simply, it is a **management tool** for organisations, be they government, industry, or community-based groups.

The key phrase in Carley's definition is "and organisation of". To be useful as a management tool, monitoring data must be organised, evaluated, and presented in a form accessible to decision-makers. Thus, monitoring is far more than the mere collection of statistics. It also involves data *analysis* and the *provision of advice* based on the analysis, for management purposes.

2.2.2 Types of Monitoring

Nine types of monitoring have been identified by Carley (1985):

(i) Inspection - the simplest form of monitoring, e.g. periodic inspections by government agencies of oil drilling activities.

(ii) Regulatory permit monitoring - often known as "compliance monitoring", to check on performance relative to permits and licences.

(iii) Experimental environmental monitoring - as part of a process of scientific investigation into environmental change.

(iv) Monitoring of ambient environmental quality/environmental auditing - monitoring of specific ecological parameters to detect changes caused by project activities ("effects monitoring").

(v) Programme evaluation monitoring - usually by government to determine the effectiveness of policies and programmes.

(vi) Project evaluation monitoring - sometimes known as post-project audit, and common in developing countries.

(vii) Monitoring of socio-economic agreements or contracts - the monitoring of agreements between industry, governments, and the community, particularly in relation to employment, training and compensation.

(viii) Monitoring for project impact management - high-level monitoring by responsible public agencies in association with independent groups of a wide range of environmental, social and economic impacts from a particular project or activity. An important extension of the assessment process designed to overcome deficiencies with predictive impact statements which are static rather than dynamic in nature.

(ix) Cumulative impact monitoring - focuses on monitoring all critical issues in a region where rapid change is occurring as a result of deindustrialisation, industrialisation, or other developments.

These types of monitoring are discussed in greater detail in Annex E.

2.2.3 The Purpose and Benefits of Monitoring the Fixed Link

Purpose

Why monitor? Historically, environmental impact assessment (EIA) has been orientated towards impact *prediction* rather than *impact management*. However, most biophysical and socio-economic systems are extremely complex and, as a consequence, it is difficult to predict the impacts of major development projects on these systems with any precision. This is particularly true where pre-project studies and/or baseline data are inadequate, as at present with the Northumberland Strait Crossing Project.

As Storey has argued in relation to social impact assessment (SIA) for the Hibernia development in Newfoundland (Storey, 1986), a pragmatic, management-orientated approach towards impact assessment is likely to have greater utility than refining methods and techniques to improve predictive capabilities. The same is true for the biophysical environment. If predictions are erroneous, then subsequent action is likely to be inappropriate or inadequate. Where outcomes are uncertain, mechanisms to *manage* impacts become at least as important, if not more so, than the predictions themselves. These mechanisms must allow rapid review and revision of predictions and assessments, and permit flexibility in responding to evolving conditions. Thus, monitoring and management become inseparable.

Monitoring is a necessary management tool to cope with *uncertainty*. Uncertainty surrounds the impact of the fixed link on the Island, with specific points of concern being:

- *Baseline Data*. The Review Panel's request for further information identified inadequacies in baseline data on the marine biological environment.

- *Cumulative effects*. The Bridge Concept Assessment document lists a number of potential cumulative effects under the general headings of the socio-economic, biophysical, and terrestrial environments. These range from shore erosion and coastal sediment transport to recreational and development pressures. The BCA report makes the point that there is little substantial regional experience with the formal assessment of, in particular, cumulative socio-economic effects. With the addition of other major innfluences on the

Island's economy, in particular the closure of CFB Summerside, cumulative impact monitoring is likely to be an important activity.

- *Impacts on terrestrial habitat.*
- *Ice/climate.*
- *Impacts on tourism, agriculture, roads, and water resources.*
- *Community development.*
- *Compensation, in particular for fishermen.*
- *Long-term employment opportunities* - especially in conjunction with the closure of CFB Summerside.

Benefits

In addition to its intrinsic benefits to PEI through providing information allowing timely and appropriate responses to project-induced effects, monitoring the fixed link will:

- contribute to FEARO by acting as a case study in the development and operation of a model monitoring system;
- contribute to the furtherance of environmental impact assessment methodology nationally by verifying (or otherwise) the predictions made during pre-project studies, thus improving predictive techniques;
- assist the Provincial Government in impact management and forward planning.
- contribute to institutional strengthening at UPEI and Holland College, through their potential involvement in monitoring the impacts of the fixed link on the Island's economy,

culture, and environment, and through the generation of an enhanced environmental education and research capability at these institutions.

2.3 Monitoring Methods

2.3.1 Criteria for a Successful Monitoring System

Experience from monitoring programmes in Canada and elsewhere suggests the following ten criteria for a successful system (Storey, 1989; pers. comm.):

1) **Commitment** by all concerned parties to the value of monitoring, and to the planning process of which the monitoring is one element.

2) **Clear definition of objectives** of any monitoring programme. These will differ for different types of programme. Historically, lack of specific objectives has contributed to unsatisfactory monitoring projects. It is essential to characterise the critical monitoring issues at the outset.

3) **Specific reasons as to why particular data should be collected.** Past experience suggests that much irrelevant material is collected, often at the expense of important data.

4) **Clearly defined roles** for the individuals, agencies, departments, companies and community groups involved in monitoring.

5) **Clearly defined methodology**: what variables should be collected, how often, by what method, who provides what information, who analyses the data?

6) **Sufficient authority** by those involved in monitoring to carry out the programme.

7) **Linking particular monitoring programmes to community development** or action programmes.

8) **Independent design and administration of the monitoring programme.** This enhances credibility.

9) **Early establishment** of the monitoring programme. Thus the organisation administering the programme must have jurisdiction over time.

10) **A mechanism for acting on the results of the monitoring programme.** If action is not taken on the findings from the monitoring process, both credibility and usefulness will be lost.

2.3.2 The Bridge Concept Assessment Monitoring Proposals

Although it is admitted that "*...monitoring proposals will be particularly important for a project of this size*" (Bridge Concept Assessment (BCA), p. 7-14), no details of any monitoring programme for the Crossing Project are available. Public Works Canada regards the design of environmental monitoring plans as the responsibility of the developer.

According to the Generic Initial Environmental Evaluation (GIEE) (P. Lane *et al.*, 1988) the successful developer's detailed proposals were to have been scrutinised during a "Specific Initial Environmental Evaluation" (SIEE). However, it is understood that this will no longer be carried out. This is of particular concern since it is essential to define the issues as early as possible. This is pointed out in the evaluation of the Miramichi Channel Dredging project (Monitoring Committee, Miramichi Channel Project, undated), where "It was necessary to construct impact hypotheses, after the fact, *because issues and concerns had not been explicitly defined during the planning and execution of the monitoring*" (original italics).

The Bridge Concept Assessment limits itself to notes on the requirements for monitoring in three main areas - environmental effects, compliance, and compensation - and for four major components of the environment - the socio-economic environment, the marine physical-chemical environment, the marine biological environment, and the terrestrial environment (the BCA notes are given in full at Annex E). The key sentence in these notes is:

"*The selected developer will administer this activity* [monitoring] *as one interrelated monitoring program.*" (BCA, p. 7-14).

This implies that external, independent assessment of the effects of the project is not considered a priority for inclusion in the formal monitoring process, despite a consensus amongst practitioners that such independent input is essential for success (see discussion above). Thus a list of criticisms of the existing proposals might include:

- absence of any details of the developer's proposed monitoring plans;
- no guarantee of public scrutiny when the plans become available;
- no stipulation in the BCA of the need for public participation in the design or operation of the monitoring plans;
- no sign of a mechanism for ensuring that adequate baseline data is acquired before construction begins; this includes items such as warning fishermen to maintain adequate catch records for several seasons prior to construction, to ensure a proper basis for calculating any compensation due;
- no sign of a commitment to ensure that necessary independent/public/community input to the monitoring process is adequately resourced and financed as an accepted part of project costs.

This initial list of criticisms suggests that Public Works Canada retains the view that all significant impacts of the project could be mitigated, despite the statement in the Generic IEE (p. 10-19) that "*in many cases, the quantification of impacts is not possible until the project operation phase is reached*".

2.3.3 Compliance Monitoring

Compliance monitoring is a normal part of all major infrastructure projects. The techniques are well known, and are not discussed further here.

2.3.4 Effects Monitoring

One useful technique used in the design of a number of monitoring programmes is the construction of **impact hypotheses** (see Everitt, 1985; Greig *et al.*, 1984; Indian and Northern Affairs, 1984). An impact hypothesis links a development activity with its potential effect, and helps to organise and define issues and concerns. An example from the Miramichi Channel Dredging Project is given in Annex G.

Effects monitoring might also be linked to the federal "State of the Environment Reporting System" being set up by Environment Canada and Statistics Canada.

2.3.5 Compensation Monitoring

One interesting approach to compensation monitoring which may be relevant to PEI is the successful Community Impact Monitoring Programme established by the Township of Atikokan and Ontario Hydro, to manage the community impacts of the construction of a power station in northern Ontario (Hancock *et al.*, 1986). The Township and the utility negotiated a series of "Community Impact Agreements" based on the concept of providing compensation for verified impacts. These agreements defined the roles and responsibilities of the parties involved, and in return for agreeing not to prevent Ontario Hydro from obtaining the necessary operating licences, the Township received a legally-based monitoring and compensation system and community planning expertise.

There was no rigid formula for deciding the significance of impacts and deciding upon compensation levels. This was done by discussion and negotiation between the Township and the project. This process was greatly assisted by the commitment of the individuals involved, and by continuity of staff over the life of the programme.

2.4 A Monitoring Framework for PEI

2.4.1 Designing the Programme

The design of a comprehensive monitoring system for the Crossing Project will be a major item of work. At this stage, it may be useful to relate Storey's criteria for success (Section 2.3.1 above) to the circumstances of the Crossing Project:

1) **Commitment** to the value of the process by all concerned parties. These parties will include (but not be limited to) the developer, Public Works Canada, other federal agencies including, importantly, the Dept. of Fisheries and Oceans and the Canadian Wildlife Service, the Provincial Government, the townships of (at least) Borden and Cape Tormentine, fishermens' associations, public interest groups, and others. It is essential to draw all these players into the design process at the earliest stage, implying the existence of a facilitating and coordinating group for this - the monitoring system design team.

2) **Clear definition of objectives.** Critical monitoring issues must be characterised at the outset. This may necessitate the construction of impact hypotheses to clarify causal relationships and their significance (see Section 2.3.4). Most of the issues appear to have been discussed in the Generic IEE and the BCA reports, but could benefit from greater public input.

3) **Specific reasons why particular data should be collected.** Monitoring can be both time-consuming and expensive. Clear definition of objectives and thorough review of sampling techniques will help to focus the data collection exercise.

4) **Clearly defined roles.** This is self-explanatory.

5) **Clearly defined methodology.** This is self-explanatory.

6) **Sufficient authority.** See (8) below.

7) **Links to community action programmes.** These links are essential, and will be particularly important in Borden.

8) **Independent design and administration of the programme.** At present, it is proposed that the developer should administer the whole of the monitoring programme. This precludes visible independence of the monitoring system, with possible reductions in objectivity and credibility. The lesson of experience elsewhere is that success of the programme will be dependent on the creation of a new, independent monitoring organisation or secretariat, with sufficient staff, resources, authority and financing to carry out the critical data evaluation function.

9) **Early establishment of the programme.** Biophysical systems can be highly variable from year to year. Early establishment of the programme is necessary to ensure that adequate time-series data is collected before construction begins, although this can seldom be sufficient for statistical rigour (ten years or more may be required to cover hydrological, meteorological and some biological cycles).

10) **A mechanism for acting on the results of the programme.** Without appropriate managerial responses, the value of the monitoring exercise is lost. The mechanisms will vary according to the purpose of each component of the monitoring programme, but it is clear that the Provincial Government and community groups will need to be directly involved.

From this list, it is clear that a major revision of current concepts for both designing and operating the monitoring system for the fixed link is required. This revision should be based on:

- **Public participation in the design of the monitoring system.**

- **The creation of an independent monitoring organisation to analyse monitoring data and initiate appropriate managerial responses.**

- **Early clarification of key issues to allow the collection of adequate baseline data.**

2.4.2 Financial Implications

At this stage it not possible to price a comprehensive monitoring programme. The principal additional costs identified relate to public participation in the design process, and the functioning of the independent monitoring data evaluation unit. These costs will be extremely small in relation to both the overall project design budget, and eventual operating costs.

It is significant that FEARO sees the Crossing Project as a good candidate for an improved monitoring system - partially as a research exercise - and this implies possible financial support.

ANNEX E

TYPES OF MONITORING

The following description of types of monitoring is taken directly from Carley (1985):

> Inspection - the simplest form of monitoring is the periodic inspection of some activity for any stated purpose, for example, to ensure that safe operating procedures are being followed, and that visible degradation is not occurring. For example, the Canadian Oil and Gas Lands Administration conducts regular on-site, bi-weekly inspections of oil and gas drilling activities by energy companies.
>
> Regulatory permit monitoring - is the continual, or periodic, recording of industry performance related to environmental terms and conditions made pursuant to the insurance of exploration, construction, operation and pollution control permits, for assessing compliance and requests for permit renewals. For example, discharges from an industrial process into a stream are usually monitored. Inspection and regulatory permit monitoring are directed to human activities, (for example, discharges), rather than to the bio-physical environment per se (for example, the stream itself).
>
> Experimental environmental monitoring - is a scientific process designed to test specific hypotheses and predictions on how environmental change is caused and expressed. This monitoring is intended to contribute to scientific knowledge by an iterative accumulation of information, to update current concepts of ecological processes, and to provide background information on the environment useful for project evaluation. There has also been social monitoring in experimental or quasi-experimental frameworks, but these have been generally unsuccessful for a variety of reasons.
>
> Monitoring of ambient environmental quality/environmental auditing - is the repetitive measurement of specific ecological phenomena to document environmental change due to the direct or indirect effects of resource development or industrial activity, and to distinguish those changes from natural variability. Such monitoring is project-related, and may be used for purposes of testing the validity and reliability of impact assessment and mitigative measures (Beanlands and Duinker, 1983). The focus is on the environment itself. A Canadian example is the Beaufort Environmental Monitoring Project (1983) which is examining project-related changes to 'valued ecosystem components'.
>
> Programme evaluation monitoring - also called productivity measurement or performance auditing. These are attempts, generally by government departments or evaluation teams, to measure the efficiency or effectiveness of policies or programmes in terms of the ratio of organisational inputs to outputs (efficiency), or satisfaction of goals and objectives

(effectiveness). Such studies are designed to (i) help determine progress towards targets or goals set by public administrators, (ii) identify problem areas and help set priorities for efforts at improved productivity and better value-for-money in government expenditure, (iii) help implement worker incentive schemes. Such monitoring efforts are usually focused on a single set of policies or a particular service delivery programme.

Project evaluation monitoring - similar to the above and most common in developing countries where social development projects have been funded by international donor agencies sucn as the Canadian International Development Agency, the World Bank, and others. Also called project audits, or post-project audits, these are attempts to determine the relative success or failure of aid projects while they are ongoing or completed, not only in cost-benefit economic terms, but in social and ennvironmental terms as well. The focus again is on evaluation of efficiency or effectiveness, and on value-for-money in relatively discrete projects. Both programme and project evaluation are part of what is called 'evaluation research', and there is crossover between these activities and impact monitoring. In some cases, however, similar terminology is used, but with some different meanings.

Monitoring of socio-economic agreements or contracts - this is the monitoring of voluntary or contractual agreements between industry and government. Such monitoring focuses on the performance of industry in terms of industrial benefits, employment and training benefits, social and cultural expenditure, and public consultations. In a general sense such monitoring can be orientated towards provision of specific benefits, or the mitigation of specific costs or negative conditions, or both.

Monitoring for project impact management - this is a broader form of monitoring in which a formalised organisation or group regularly assesses a wide range of ennvironmental, social, and economic impacts from a particular project or activity. These may range from resource development and construction projects to industrial plant closure. This monitoring is designed to ensure a flow of benefits, or to control the severity and distribution of anticipated or especially unanticipated negative effects as they occur, and possibly to ensure due compensation where it is required. This type of monitoring is directly linked to schemes to reduce or mitigate negative impacts. Organisationally, at its simplest it is carried out by project proponents and overseen by an appropriate government agency. More realistically, it is conceived of as high-level monitoring by responsible public agencies in association with independent groups. The intent is to report on the entire project or activity, including objectives; criteria for judging success; the technical and institutional means for reaching these; planning systems; adequacy of inspections and coordinations; and other critical social issues like unemployment (Nelson and Jessen, 1981). This is an important extension of the impact assessment process. It attempts to overcome deficiencies in that process, and especially with predictive impact statements. Such statements are static rather than dynamic in nature, and therefore unresponsive to new information and changing conditions. A side benefit of monitoring at this scale may be ex ante testing of predictions in the original social impact assessment, similar to ennvironmental audits.

Cumulative impact monitoring - this is usually of interest in geographic regions where rapid industrial or agricultural development and/or dramatic socio-economic change is taking place, as well as in areas of deindustrialisation. This monitoring programme is not confined or limited to programme or project-related direct or indirect impacts. Rather the focus is on monitoring all critical issues or changing socio-economic patterns in a region, whether they are related to a project or government programme or occur independently. The cumulative perspective for the human environment considers the social, economic, cultural and political implications of all structural economic changes in a city or region with attention to their interrelated effects over time. The sum of these interrelated effects is likely to be greater than those generated by particular policies, programmes or projects considered separately. That is, impacts may have an additive effect: many small, local impacts could be serious when occurring together. Such monitoring is characterised by an area-wide or regional, rather than site-specific, perspective; attention to overlapping impacts of different projects and policies; and a time-perspective stressing the long term, incremental and dynamic nature of social change. It is usually carried out by government to i) provide a regional overview, ii) to provide a coordinated and organised flow of information for strategic planning purposes, and iii) to ensure some compatibility in the impact of different policies emanating from different government departments. In addition to documenting socio-economic change, it also serves to coordinate the variety of information generated by less strategic types of monitoring. It can begin well before decisions on project acceptability are taken, but more likely it will be a component of a regional or strategic planning process, and therefore unrelated to the timing or acceptability of particular projects. The cumulative monitoring approach is also of interest in cases where cause and effect, of activity to impact, is difficult to assess because of numerous economic and social interventions or because of a complex socio-economic environment (for example in most urban areas). The cumulative monitoring approach sidesteps the vexatious issue of causation in the social environment, by choosing to focus on the critical issues which confront the residents of an area under study.

THE TOURISM INDUSTRY ASSOCIATION OF PRINCE EDWARD ISLAND PROVIDES LEADERSHIP FOR THE TOURISM INDUSTRY, AND REPRESENTS ITS INTERESTS SO THAT OPERATORS CAN GROW AND MAKE AN INCREASING CONTRIBUTION TO THE ECONOMY OF THE PROVINCE.

TIAPEI REPRESENTS IN EXCESS OF 650 TOURISM OPERATORS

31 BOARD MEMBERS FROM AREA ASSOCIATIONS AND INTEREST GROUPS INCLUDING EXECUTIVE)

TOURISM 2ND RANKING INDUSTRY IN P.E.I. EXPECTED TO BE NUMBER 1 BY 2000.

1989 TOURISM REVENUE WAS APPROXIMATELY $108.3 MILLION FOR A FULL YEAR

IN 1989 THERE WERE APPROXIMATELY 860,000 VISITORS TO P.E.I WITH 744,000 VISITORS DURING MID-MAY TO OCTOBER 31/89

FIXED LINK WILL HAVE A POSITIVE IMPACT ON TOURISM.
EXTEND THE SHOULDER SEASON
INCREASE EMPLOYMENT
INCREASE BUSINESS OPPORTUNITIES
PROVIDE NEW FACILITIES

JOINT PLANNING ON THE PART OF GOVERNMENT AND PRIVATE SECTOR MUST BE CARRIED OUT.

PLANNING HAS BEGUN, GOVERNMENT AND TIAPEI HAS PRODUCED TOURISM 2000.

1. TOURISM DEVELOPMENT MUST PROCEED IN CONCERT WITH THE DEVELOPMENT OF THE OTHER INDUSTRIAL SECTORS OF THE PROVINCE.

2. THE TOURISM GOAL MUST BE ACHIEVED BY PROMOTING PEI LIFESTYLES, VALUES, HERITAGE AND CULTURAL TRADITIONS WHILE PRESERVING THE ATTRIBUTES AND ATTRACTIONS UNIQUE TO THE PROVINCE

3. VISITORS WILL BE ENCOURAGED BY CREATING ATTRACTIONS APPROPRIATE TO OUR ENVIRONMENT AND ACTIVITIES IN HARMONY WITH THE CONSERVATION AND PRESERVATION OF THAT ENVIRONMENT.

4. THE GOAL WILL BE ACHIEVED BY ENCOURAGING A WIDER DISTRIBUTION OF VISITORS ACROSS THE PROVINCE IN BOTH TIME AND SPACE.

5. A REQUIREMENT FOR ACHIEVING THE GOAL IS PROVISION OF A QUALITY PRODUCT AND SERVICE MEASURED AGAINST FIRST-CLASS STANDARDS OF EXCELLENCE.

6. THE TOURISM INDUSTRY WILL DEVELOP BY USING MARKETING

STRATEGIES BASED ON POTENTIAL DEMAND, CONSUMER NEED AND THE WILLINGNESS TO PAY AND OPENING OF NEW MARKETS.

7. TOURISM DEVELOPMENT MUST PROCEED THROUGH THE LEADERSHIP AND INITIATIVE OF THE INDUSTRY WITH THE SUPPORT AND SERVICE OF GOVERNMENT.

8. TO ACHIEVE THE GOAL, OBJECTIVES AND STRATEGIES OF THE PLAN MUST BE CONTINUALLY REVISED TO MATCH THE DEVELOPMENT OF THE INDUSTRY WITH CONSUMER NEEDS CONSISTENT WITH SOCIAL AND ENVIRONMENT CONSIDERATIONS OF THE PROVINCE.

ENVIRONMENT-TOURISM MAJOR COMPONENT OF CONSERVATION STRATEGY. TOURISM MUST DEVELOP WITHOUT UNDUE STRESS ON THE ENVIRONMENT.

MAIN PREMISE OF TOURISM 2000 IS TO DEVELOP TOURISM IN AN ORDERLY FASHION ENSURING THE PROTECTION OF ENVIRONMENT , HERITAGE, AND CULTURE.

HERITAGE - TOURISM HAS AIDED IN THE PRESERVATION OF P.E.I. HISTORY (IE. FESTIVAL OF THE DESCENDENTS
IRISH HERITAGE FESTIVAL
CONFEDERATION CENTRE (L.M. MONTGOMERY)

CULTURE - TOURISM ALLOWS P.E.I. TO PROMOTE IT'S CULTURAL EVENTS (IE. COMMUNITY FESTIVALS
MUSEUMS
HERITAGE FOUNDATION
CONFEDERATION CENTRE OF THE ARTS.

INDUSTRY CAN DEAL WITH CONCERNS THROUGH TOURISM 2000'S PRINCIPLES OF DEVELOPMENT.

INCREASED TOURISM TRAFFIC
THERE IS SUFFICIENT NUMBER OF ACCOMMODATIONS AVAILABLE WHEN VISITORS ARE DISTRIBUTED OVER TIME AND PLACE.
PRINCIPLE OF TOURISM 2000
(SEE ATTACHED TABLES)

ADDITIONAL INFRASTRUCTURE REQUIREMENTS OF ACCOMMODATIONS AND SUPPORT SERVICES CAN BE FACILITATED THROUGH PROPER PLANNING AND ORDERLY DEVELOPMENT. (IE. GROUND WATER SUPPLY, SEWAGE TREATMENT AND DISPOSAL SYSTEMS, EXPANSION OF UTILITIES AND SERVICES.)

TRAFFIC CONGESTION AT DESTINATION POINTS WILL BE REDUCED BY VISITOR DISTRIBUTION AND PROPER PLANNING.

COMPLETION OF THE PLANNED PERIMETER ROAD FOR CHARLOTTETOWN ALONG WITH THE OFFICIAL PLAN FOR THE COMPREHENSIVE

DEVELOPMENT OF THE CAVENDISH PLANING AREA, WILL CONTROL THE MAJOR DESTINATIONS.

ADDITIONAL TRAFFIC ON ISLAND HIGHWAYS DOES NOT REPRESENT A SUFFICIENT PROBLEM FOR ISLAND HIGHWAYS.

LABOUR SUPPLY ISSUES ARE CURRENTLY BEING ADDRESSED BY TIAPEI IN CONJUNCTION WITH BOTH THE PROVINCIAL AND FEDERAL GOVERNMENTS.

SUFFICIENT LABOUR FORCE IS NOT A CONCERN WITH PREVIOUS PROGRAMS AND AN UNEMPLOYMENT RATE RANGING BETWEEN 9.2 - 16.3% .

PRESENTLY TIAPEI IS PLANNING FOR THE FUTURE BY PROVIDING THE FOLLOWING PROFESSIONAL DEVELOPMENT PROGRAMS:

SERVER INTERVENTION
FOOD & BEVERAGE SERVER TRAINING
GOODNESS GRACIOUS
TOURISM EMPLOYMENT PREPARATION PROGRAM
TOURISM ENHANCED TRAINING PROGRAM

TOURISM 2000 PRINCIPLES WILL INSURE EXTENDED JOB OPPORTUNITIES BY INCREASING YEAR ROUND TOURISM.

VALUE OF THE TOURISM PRODUCT IS NOT AT RISK, AS THE VALUE IS ACTUALLY INCREASING BY THE CURRENT OPERATION OF THE FOLLOWING TIAPEI PROFESSIONAL DEVELOPMENT PROGRAMS:
ACCOMMODATION GRADING
SERVER INTERVENTION
FOOD & BEVERAGE SERVER TRAINING

IN CONCLUSION THE EXECUTIVE, BOARD OF DIRECTORS, AND MEMBERS OF THE TOURISM INDUSTRY ASSOCIATION OF PEI FULLY ENDORSE THE IMPLEMENTATION OF THE FIXED LINK PROJECT.
THE INDUSTRY HAS FOLLOWED THE WORK OF PUBLIC WORKS CANADA, TECHNICAL EXPERTS AND CONSULTANTS WITH GREAT INTEREST. IT IS OUR BELIEF THAT THE FIXED LINK PROJECT HAS BEEN THOROUGHLY SCRUTINIZED AND WILL SERVE TO BENEFIT ALL ISLANDERS FROM EVERY WALK OF LIFE. THE STUDIES UNDERTAKEN TO EXAMINE THE IMPACTS AND EFFECT OF A LINK TO THE MAINLAND HAVE BEEN EXHAUSTIVE COVERING THE SOCIAL, ECONOMIC, CULTURAL, ENVIRONMENTAL, AND SCIENTIFIC ISSUES PERTINENT TO THE ISLAND WAY OF LIFE. THE TOURISM INDUSTRY ASSOCIATION OF PEI VIEWS FIXED LINK AS A LARGE SCALE PROJECT THAT CAN ONLY ENHANCE THE TOURISM INDUSTRY OF PEI. THE INDUSTRY IS COMMITTED TO SEEING CONTROLLED DEVELOPMENT OF TOURISM, AND NOT A HAP-HAZARD, HIT AND MISS RESPONSE TO INCREASED VISITORS THAT WILL COME ABOUT AS A RESULT OF THE PROJECT. THE INDUSTRY WILL BE PREPARED TO DEAL WITH INCREASES IN VISITORS. FIVE YEARS ALLOWS AMPLE OPPORTUNITY PLANNING NECESSARY. THE SIGNIFICANCE OF TOURISM

TO PEI'S ECONOMY IS ALREADY KNOWN. THE EXISTENCE OF A FIXED LINK WILL SERVE TO FOSTER GROWTH OF THIS VITAL INDUSTRY THAT AFFECTS ALL ISLANDERS.

SMITH GREEN ASSOCIATES (DEC. 1989)

New Accommodations Demands by Type, against capacity; 100% of Projected Tourism Increase Arriving in First year of Bridge Operations (145,000). Peak Season Impact (June - September)

Type of Accomm.	% Share of Market		Share of Market Increase		Length of Stay		Peak Season % Share	Total Nights		92 Nights		Average size Party	New Unit Demand Per Night
Motel/Hotel	35%	=	50,750	x	3	x	68%	103,530	=	1125	per ni.	2.14	526
VFR	23%	=	33,350	x	5.4	x	68%	122,461	=	1331	per ni.	1.9	701
Campground	20%	=	29,000	x	3.4	x	100%	98,600	=	1072	per ni.	2.7	397
Cottage	11%	=	15,950	x	6.0	x	100%	95,700	=	1040	per ni.	2.66	390
Inns/B&B/Homes	7%	=	10,150	x	4.0	x	90%	36,540	=	397	per ni.	2.13	186
Other	4%	=	5,800	x	15.0	x	90%	78,300	=	851	per ni.	2.1	405

ASSUMPTIONS:

100% of projected visitor increase upon bridge opening will arrive in the first year of bridge operations (145,000)

Peak Season will attract 68% of the annual visitor increase

Even distribution of visitors throughout the 92 days of the peak season in time and place.

	FIXED LINK EFFECT ON 1989 ACCOMODATION CAPACITY					FIXED LINK EFFECT ON 1995 PEAK SEASON CAPACITY				
Type of Accomm.	Capacity (Units)	Occupancy Rates %	Actual Capacity Used	New Unit Demand Per Night	+/- Units	Projected Capacity Units	Occupancy Rate %	Projected Capacity Used	New Unit Demand Per Night	+/- Units
Motel/Hotel	2800	77%	2156	526	+118	3289	77%	2533	526	+230
Visit Friend	---	---	---	701	---	---	---	---	701	---
Campground	5500	N/A	N/A	397	N/A	6460	N/A	N/A	397	N/A
Cottage	1400	73%	1022	390	-12	1644	73%	1200	390	+54
Inns/B&B/Homes	1300	68%	884	186	+230	1527	68%	1038	186	+303
Other	---	---	---	405	---	---	---	---	405	---

ASSUMPTIONS:

100% of projected visitor increase upon bridge opening will arrive in the first year of bridge operations (145,000)

Peak Season will attract 68% of the annual visitor increase

Even distribution of visitors throughout the 92 days of the peak season in time and place.

Growth projected for accommodation consistant with previous years.

N/A Not Available

rec'd
Mar. 5/90

THE ENVIRONMENTAL ASSESSMENT REVIEW PANEL

IN THE MATTER OF a Submission to the Panel by a concerned citizen namely:

Roy J. Ridlington
P.O. Box 1682
Charlottetown, P.E.I.
C1A 7N4

NATURE OF SUBMISSION

This submission will comment on potential environmental and socio-economic impacts of a fixed link between Prince Edward Island and New Brunswick. As a subsidiary matter, it will comment on the role of the Environmental Assessment Review Panel, itself, as an additional factor in the process of determining whether the Northumberland Strait Crossing Project, or "fixed link" will proceed.

BASIS OF SUBMISSION

Although there clearly will be environmental and socio-economic effects as a result of the construction of the fixed link, any potential negative impacts will be controllable and positive impacts will be beneficial to Prince Edward Island and the adjacent mainland areas.

Equally, the Environmental Assessment Review Panel must not act, or be persuaded to act, so as to frustrate the political will of the people of Prince Edward Island as expressed in the plebiscite of 18 January, 1988.

.../2

DISCUSSION

As the Panel has heard numerous times, the fixed link is a project of immense importance to the future of Prince Edward Island. Whether the project proceeds or is cancelled, there will be a road not taken and that choice inevitably will shape the future of the province.

The Panel and the Plebiscite

The people of Prince Edward Island already have indicated the path they wish to choose. A majority of Island residents who voted in the plebiscite of 18 January, 1988, favoured a fixed link with the mainland. The Panel has heard criticism of that vote, and much rhetoric and rationalization, from persons who wish the outcome had been different.

However, it was unmistakably in favour of the fixed link and resoundingly so. The vote for the fixed link was as strong an indication as that which Quebec voters gave Réné Levesque when they turned down sovereignty association. To bring the matter closer to home, published figures show that the popular vote of 59.4% in favour of the link was greater than the popular vote of 53.7% favouring the Progressive Conservatives who formed the provincial government in 1982, and greater than the popular vote of 50.4% favouring the Liberals who took over the provincial government in 1986.

The Panel must not be swayed by those who would contravert the democratic process by maintaining that the plebiscite was not a legitimate expression of the preference of Island residents to have a fixed link. In fact, it would be appropriate for the Panel to consider its mandate in the light of the plebiscite results.

.../3

It is important for the Panel, in conducting its review of the environmental and socio-economic effects of constructing the fixed link, to remember that it could play its greatest and most useful role by advising how the project could be constructed with minimal negative impacts.

The Panel and the Problem

The challenge facing the Panel is a formidable one. Projects such as the fixed link cannot be constructed or operated without risk. The majority position on the plebiscite, however, must be viewed as an expression of faith that the review, construction, and management processes currently available are effective to handle that risk. Of course, reasonable people also want the safest and best structure possible; one that will integrate well into its surroundings with a minimum of disruption of the environment.

However, when reviewing the impacts of the fixed link, the Panel is faced with conflicting points of view. Persons like myself want the fixed link project to go ahead, but in a cautious and well-reasoned way which takes account of environmental and socio-economic concerns to the best of our abilities. However, those who criticize the link are of two different sorts; those who do not want the link at all, and those who represent a single, specific interest and for whom the desire to promote their own position is the primary goal.

The first group of "nay-sayers" have developed the insidious tactic of using the Panel itself as an obstacle in the path of the crossing project. Capitalizing on the Panel's desire to be fair, thorough, and effective in its work, they use the review process to delay the project, to deride its supporters, and to sow seeds of doubt. They have questioned the technology

.../4

of the fixed link, the integrity of its political supporters, the intellectual honesty of the public officials associated with the project, the logic of the professionals assigned to study the matter, the wisdom of the majority of Islanders who favor a fixed link, and the independence of the Environmental Assessment Review Panel itself. Allegations and innuendo are everywhere in their approach; evidence and arguments sufficient to establish a factual basis for their contentions are not. They do not criticize constructively. They offer no practical alternatives. They only seek to delay, confuse, and cancel the project.

The second group of link opponents are the special-interest promoters. Their only unity is in their desire to speak out against the fixed link. They adopt the camouflage of environmental concern, but their real goal is to promote their own interests. Therein lies the difficulty. The diversity of their individual concerns makes it difficult to find a middle-ground solution that will accommodate as many of their special interests as possible. This is regrettable, as some of their concerns are legitimate. However, in their desire to oppose the link, they are losing an opportunity to participate in consultations which simultaneously might allow the project to proceed and their problems to be dealt with. The ferry workers, and their local, vocal union bosses are a case in point.

Perhaps the best advice that can be offered to the Panel is a variation on a statement by Abraham Lincoln; you can please some of the people all of the time, you can please all of the people some of the time, but you will never please all of the people all of the time. The Panel therefore should subject everything it hears, pro and con, to the same degree of searching enquiry and logical analysis. The comments of those who criticize the information currently available to the panel must also be tested for reasonableness, accuracy, and a sound, evidentiary basis. The Panel must not be swayed by subjective preferences and emotions.

.../5

The Specific Concerns

The Panel must review the environmental and socio-economic effects of the fixed-link project. It must do so fairly, and to fulfill its mandate I believe the Panel must view the "big picture". It would be easy to imagine P.E.I. in isolation as a pristine beauty spot whose environment and economy is threatened only by the prospect of a local mega-project. That would be wrong.

P.E.I. is a small part of a national, continental, and indeed planetary eco-system. Its principal exports are subject to the vagaries of world markets. With or without the fixed link, acid rain will continue to fall on our woodlots; pollution from the Great Lakes sufficient to kill Beluga whales still will flow into the Gulf waters surrounding the Island; overfishing by foreign fleets will continue to affect the Atlantic fishery; good or poor crops in other areas will affect potato prices; and the tastes of Japanese consumers will continue to affect sea-food markets.

There is no Super-dome over P.E.I. which insulates it from the world beyond the Strait and which the fixed link will breach. The world's problems are ours already and it is fallacy to think we will be protected from them if a link is not built. The fixed link offers Island residents an opportunity to capitalize on our own ingenuity, and our inherent resourcefulness, to overcome some of the external factors which affect us. That we must work to do this appears clear from the Throne Speech which marked the opening of the Provincial Legislature on 22 February, 1990, and I quote:

> "We live in a constantly changing environment, and we must be attuned to change. Certainly, it is now clear that the environment of federal financial transfers to this province and to

.../6

> individual Islanders is changing. For a small province like ours, this changing fiscal environment means that we must strive, harder than ever, to become self-reliant and resourceful.
>
> ...
>
> Our Island province must reach out to an increasingly competitive world market place, one that demands a new variety of product."

P.E.I. needs to unite with, and link ourselves to, the rest of the country and the world if we want to survive economically on anything that remotely could be called our own terms. The Panel, in its review, must remember how greatly a fixed link could contribute to this need, a need which clearly has been recognized by a majority of voters in the plebiscite.

With these points in mind, let us review some of the specific issues;

The Fishery

It is clear that the fishery in the Northumberland Strait would be disrupted during the construction of a fixed link. All fair-minded people would have to agree that affected fishermen should be compensated for demonstrated losses.

The fishery, however, should not become an issue which threatens the project. This is because, regrettably, the Atlantic fishery is in a state of chaos. The very fisheries scientists whose predictions have been recommended to the Panel as most trustworthy now admittedly have failed miserably in predicting Northern Cod stocks and quotas.

.../7

Although John Jamieson, of the P.E.I. Fisherman's Association, told the Panel on 20 June, 1989, in respect of Island fishermen that:

> "They could even be considered by a lot of people the envy of the Atlantic Canadian fishery",

it seems that such is not really the case. When Mr. Jamieson was asked to comment on the closure of Murray Harbour Seafoods, and the plight of the fishermen who sold lobster, groundfish, herring and scallops at the company docks, he said:

> "Nobody made a friggin' penny over the summer and the lobster is the big fishery ...it just shows the poor state this industry is in".

The truth of the matter now appears to be that the basic infrastructure of the Atlantic fishery is in peril. Inventories are high, demand is low, and prices are soft. As the government said in its recent Throne Speech;

> "The major challenge that presently faces our Island lobster fishery is the increased competition for international markets".

The provincial government is committed to processing more seafood on P.E.I. in new and different ways. It wants to promote new markets and marketing initiatives. In so doing, however, there is one inescapable reality. We need a secure means of access to off-Island markets. This the fixed link will provide.

In short, the means the provincial government is using to shore up, revitalize, and promote the fishery can only be well-served by a better, faster, more predictable means of conveying product to market. There is no value in the fishery if what fish is available can't be sold.

.../8

The Socio-Economic Situation

Recent developments dramatically have emphasized a very important aspect of the "Island way of life" - its fragility. Roughly half of the province's revenues come from the federal government. When the receipt of such revenues is threatened, the outlook for P.E.I. becomes bleak indeed.

Since the panel last sat in public hearings, the decision has been made to close CFB Summerside. The railway has ceased operation on P.E.I. and the last railway rolling-stock is gone. The U.I.C. system has been changed, funding for education and social benefit programs has been capped and/or reduced, and even Marine Atlantic itself has had its operating subsidies frozen. The Panel's experts talk of "worst plausible scenarios" and doubt the legitimacy of the information provided on the fixed link project. For the most part, however, they offer no practical alternatives. If federal funding declines further, they give us no new suggestions as to what residents of P.E.I. can fall back on.

What we do have in P.E.I., as our present government has recognized, is certain world-class commodities and capabilities. We have our own ingenuity and resourcefulness. We have better potatoes and lobster than anyone in the world, and other agricultural and fishery resources to match. We have the ability to offer tourists a great vacation. We have to capitalize on these assets. In so doing, however, there is one inescapable reality. To boost our exports, we need a secure means of access to off-Island markets. To increase tourism, our visitors must have better access to our province. All those requirements will be secured by the construction of the fixed link.

.../9

The government's Throne Speech appears to agree. As it states:

> "My government recognizes the vital importance of creating a suitable environment for economic development in the province. In all our primary resource industries, for example, we have worked to increase value to Island products, to reduce input costs, and to establish new markets.
>
> ...
>
> My government also recognizes, Mr. Speaker, that our economy depends on the quality of our transportation system.
>
> ...
>
> We can be confident in our knowledge that Prince Edward Island produces the finest quality agricultural and fishery products in the world. We can be confident, but we cannot be smug. We must be more creative and innovative in our new product development and packaging designs. We must then promote and market more actively and more aggressively in order to grow."

It certainly is the case that our natural environment should be preserved to the greatest possible extent. However, unfounded claims by critics that the natural environment will be threatened by the project must not be allowed to over-ride sensible development initiatives to the socio-economic disadvantage of Island residents.

The Tunnel Option

The Panel has heard much about a tunnel option and why its consideration should be revived. Proponents of a tunnel easily disregard the practical realities of Mr. Wilson's federal budgets, deficit reduction, high interest rates, and the inability of the tunnel proposals to meet the financial parameters governing the construction of a fixed link.

.../10

Mr. Thomas W. Kierans, P. Eng., the Panel's tunnel expert, says a tunnel is a better prospect than a bridge, and warns against choosing the wrong option. He uses the English Channel tunnel as proof of his assertions. How, then, does he reconcile his firm views with the following Reuters news release, published locally on 22 February, 1990;

> "Anglo-French developers announced a deal Wednesday to rescue the partially-built channel tunnel after management and financial disputes threatened to wreck one of the world's biggest engineering projects.
>
> The developers, Eurotunnel, appointed a U.S. executive to manage their stormy relations with builders Transmanche Link. They said the way is clear for fresh bank lending to keep diggers working on the 50-kilometer-long railway "chunnel"."

The prospect of the channel tunnel's failure doesn't deter Mr. Kierans, nor Mr. Maurice Lodge, from stoutly maintaining that a railway tunnel is the best link option. Neither does it enhance their credibility. This especially is so when one remembers that rail service on both sides of the Strait now has been abandoned. A rail tunnel that spans the Strait, but connects to nothing at either end, may be the best option for some, but not for those who have accepted the practical realities of current political and economic climates in Canada.

The rail tunnel simply is a subterranean ferry service which would perpetuate the same delays, frustrations, and problems of the surface vessels while adding difficulties of engineering, finance and life-support for the users. The Panel must not forget that 3 bridge designs remain in the running because they can, and do, address the realities which the tunnel doesn't; they offer some prospect of avoiding the additional problems a tunnel would engender; and they appear to be able to meet the financial parameters which the tunnel cannot.

.../11

The Climate

The panel has heard expressions of concern as to the effects of climate, and particularly ice, on the fixed link and vice versa. Frankly, I find the material in respect of ice-loads to be highly technical. However, in working through it, I am convinced that we are not talking of a problem without a solution. What we seem to be faced with is a matter which can be resolved by engineering adequate margins of safety into the structure itself. At Borden, at Cape Tormentine, and at many points on either side of the Northumberland Strait there are structures which protrude into the water for varying distances. These wharves, jetties, breakwaters, and other works, withstand winter after winter of pressures from sea-ice and are not carried away, destroyed, or often even damaged. I remain confident that a fixed-link in bridge form could be built to withstand such conditions.

Having made the above observations, I have noticed two other points which do not agree with my own experience.

At page 13 of Professor Dadswell's submission of January 15, 1990, he makes several comments about wind on the bridge. Experience in living on P.E.I. in winter soon demonstrates to the resident that the principal negative effect of wind is in causing ground-drifting of snow. However, this takes place only a few feet above the land, or ice, or whatever hard surface the wind blows across. I would have to say that a fixed link in bridge form in all likelihood would be above the ground-drift, which mostly would sweep below the structure supporting the roadway.

At page 3 of Jean S. Klewin's observations on the Supplement to the Bridge Concept Assessment, she states;

.../12

> "...only extreme ice conditions which occur seldomly during a year can prevent ferry service".

However, we are not yet through a winter which has seen ferry service cancelled or delayed because of mechanical failure, wave conditions which make docking dangerous, ice rafting against the entrances to the Borden and Cape Tormentine terminal entrances, and visibility during storms. The ferry is far more at the mercy of the elements than Jean S. Klewin wishes to admit. There is, however, one area of validity in her observations. When Island roads are declared unsafe to travel in winter, the ferries also often do not run. That is because both land and sea transportation become equally hazardous during the temporary conditions caused by severe winter storms. In short, there may be times when either link or ferry are affected adversely by weather conditions. That is of little consequence because, at such times, few if any reasonable people would try to negotiate Island roads to reach a crossing of either sort.

Finally, in respect of the ice-out date in the Northumberland Strait, I am convinced by the material available that any variations in that date which might arise because of the fixed link nevertheless would fall within the range of variability encountered naturally from year to year.

SUMMATION

The Federal Environmental Assessment and Review Process is described in FEARO's own literature as

> "... a means to identify unwanted effects before they occur and determine appropriate mitigation measures. It offers an opportunity to alter or abandon plans if major negative effects cannot be moderated."

.../13

I am convinced that the considerable study already undertaken on the fixed link reveals no major negative effects that cannot be moderated. There are adjustments, refinements, and clarifications that could be made to mitigate certain problem areas, but there are no insurmountable difficulties which would justify an abandonment of the project.

With that in mind, the fixed link appears to be a viable concept. The plebiscite showed a majority of Island voters to be in favour of it. It appears to fit into the government's future aspirations for P.E.I. There are three sound proposals from responsible developers. Best of all, a large proportion of the costs involved will be privately funded so the project could proceed without any undue effect on government coffers or federal or provincial deficits. Its potential long-term effects on P.E.I. appear to be positive. It is my sincere hope that the Panel will recommend that the fixed link project should proceed. P.E.I.'s prospects will not improve if it is left in a state of pastoral isolation.

I appreciate the opportunity to bring these opinions forward and thank the Panel members for any consideration they may give to them.

Roy J Ridlington

Roy J. Ridlington

Dr. Barnes
Panel Chairman

I am concerned to make 2 observations on the material provided to the Panel on the tunnel option by Mr. Kierans:

1. As best a layman can understand his references to geo-technical information, he seems to be intimating that there should be, or should have been, more publicly-funded information provided to tunnel proposers so as to make their proposals competitive with bridge proposals. In fact, I understand such information might have been necessary in order to make a proposal at all. It occurs to me that Mr. Kierans is proposing an unequal provision of information, publicly funded and favouring tunnel proposers. This seems patently unfair. If the tunnel proposals can't be based on the same information that has allowed 3 viable bridge proposals to come forward, that is perhaps one of the reasons why a tunnel is itself not a viable solution.

2. When speaking of environmental effects, and especially in response to questions 3 and 8 as posed to him by the Panel on 6 July 1989, Mr. Kierans' information sadly overlooks what for the "Channel" is looming as the most significant environmental impact of a tunnel, ie, the disposal of material/spoil extracted from it in the course of digging. Insofar as this issue is inadequately addressed, the Panel must be cautious in accepting his information and in according it credibility.

I appreciate the Panel's patience in considering these further observations from me.

Roy J. Ridlington
St. Catherines, PEI

Brief to the Environmental Assessment Review Panel
Submitted by the Greater Charlottetown Area Chamber of Commerce

Mr. Chairman and Panel Members:

Last Summer the Greater Charlottetown Area Chamber of Commerce[1] made a presentation to the Review Panel in which we supported the environmental review process then underway. Since that time we have followed the progress of your work very carefully, including a review of reports as they have been issued.

We would now like to review our understanding of the results of the latest studies, to ensure that we have correctly interpreted what has been done and also to identify areas which may require clarification from the Panel. While we continue in our support of the bridge crossing project, we also wish to satisfy ourselves that all issues are dealt with adequately before the Panel retires to prepare its recommendations.

May we say first that we made a decision quite early that we would accept the integrity and professional competence of the consulting reports. Considering the expert advice also engaged by the Review Panel, we cannot consider how any work which is not technically and professionally sound will pass scrutiny.

The issue for us now is the interpretation of findings, and we would like to review our understanding of it. Where we differ with the Panel's interpretation we would ask to have our misunderstandings clarified in your report.

---

[1] In this presentation we represent over 500 members, distributed within a 25km radius from Charlottetown, and several others outside that radius.

Ice Regime

We would first like to address the issue of the ice regime. Last year we were ready to accept, almost on faith, that the crossing did not present a problem with respect to ice-out in the Strait. Subsequent studies have established that we, perhaps like most Islanders, have not fully understood the dynamics affecting the ice regime. We have tended to think of the Strait as being in the nature of a very large lake, rather than as a river; we also thought that the Strait influenced the weather and the world around it, rather than the other way round.

We now understand as follows:

- The ice in the Straits does not control or substantially influence weather conditions in the region; rather, weather conditions in the region influence the ice in the Straits.

- Annual ice-out dates are largely determined by global atmospheric influences, and by influences from the Gulf of St. Lawrence; the fixed crossing will therefore be a minor factor in the ultimate ice-out date each year.

- While the impact of multiple ferry crossings in breaking up the ice will be lost following bridge construction, there will be a substantial gain from the impact of up to 70 bridge piers; these will act very much like slow-moving ships, reversing themselves each day, and creating multiple ice fracture lines.

- The ice in the Strait is not a single mass, but a collection of masses; for this reason, ice-out is not a single event, but a series of events, occurring at different times in different parts of the Strait.

- Finally, ice break-up occurs as a result of degradation at the top, bottom, and perimeter edges of the ice, and the substantial action of the tides and general weather conditions (wind, rain, sun); this puts a different perspective on the influence of the ferry crossing on ice break-up.

If we are correct in this information, we would have to conclude that the fixed crossing construction will not be a major factor with respect to ice-out and related issues, nor will it have a substantial impact on the PEI weather. If we are wrong in these assumptions we would want clarification from Panel experts on those points which we may have misunderstood.

It would follow that potential impacts of the fixed crossing on ice regime and climate do not seem to be limiting factors in the decision to proceed with this project.

The Fishery

Since last summer we have been interested in critiques which have been submitted by the Department of Fisheries and Oceans and by the PEI Fishermen's Association concerning possible bridge impacts on the fishery. A number of our members have a direct interest in the fishery, so we have paid particular attention to fisheries related findings.

It is now our understanding that apart from the impact on those fishermen whose harvest is adversely affected by the exclusion zone, for which there will be compensation, the impacts on the fisheries are expected to be either positive or benign. In fact, the conventional wisdom now seems to be that the new rip-rap created at the 70 or so bridge piers is now expected to create desirable new fish habitat, particularly for shellfish.

We have also learned that at one bridge site in France which was visited by a delegation of NB fishermen, in an area which is also rich in marine life, local fishermen bid for fishing rights at bridge piers. This would indicate that the Northumberland Strait may represent new economic opportunities for fishermen, at no direct development cost to themselves.

We have been encouraged by the extent of interaction between the project consultants and the fishermen in the zones affected. While it would be unreasonable to expect that all fisherman be contacted, we were reassured to know that the guidance of experienced fishermen was obtained in completing the fisheries related studies. As a result we cannot see significant problems for either the fish or the fishermen from the bridge project.

The only real issue we can anticipate is with the mechanism for determining compensation for those whose annual fishing operations are directly affected. We believe that this must be covered in your recommendations as one of the stated concerns of the Province of PEI.

We have also inquired into the possible problems of increased siltation in the Strait as a result of dredging activity; we have been advised by our experts in this industry that when dredge material from this type of construction is dumped it tends to fall in the fashion of a mud-ball, and will fall in a mass directly onto the Strait floor. In this way there is minimal siltation from the dumping of dredge materials, contrary to what many people may have thought.

Any siltation will be the result of the work of excavating the pier footings, and this will occur over a four-year period, at various locations across the Strait. We are satisfied with assurances given as to the probable amount of siltation, in view of the distribution of potentially affected species.

From reading the various critiques of the consulting reports we have a fear that the fixed crossing may have become a symbol for other events which are adversely affecting the fisheries in the region. That is, people may oppose the crossing whose concerns may be more broadly directed at a number of events in other fields which have been negative for this industry. It would be unfortunate if global concerns for the fishery became a factor influencing a decision on the crossing.

Fisheries problems will continue, with or without the crossing; we see the crossing in positive terms, as possibly enhancing rather than hurting the fishery in the Straits.

As a business association we are concerned that fishermen who are adversely affected should be properly compensated for losses, but beyond that we cannot see a fisheries reason for not proceeding with the bridge construction. Again, if we have misinterpreted or misunderstood the information provided to the Panel we would ask to be correctly informed in your report.

Environmental Issues

Islanders have developed an increased awareness of environmental issues in recent years, especially concerning our water supply and the management of domestic and industrial wastes, the protection of our land and river systems, and also the protection of those elements which are important to our tourism industry. For this reason we have given special attention to environmental issues, and last summer we submitted a Brief to the Royal Commission on Land Use and Land Ownership outlining our concerns in this area.

Like many Islanders we have been most interested in learning about the tunnel option, and why it was not considered viable. We were aware that Public Works Canada had left the tunnel option open to developers, but that only one tunnel proposal was received, which was neither time nor cost specific. Since then we have learned more about difficulties inherent in constructing a tunnel which are not experienced in bridge constructions; we are told that tunnels are highly vulnerable to substantial cost over-runs, as witness the so-called Chunnel between Dover and Calais.

As representatives of the business community we have to consider the tunnel option is not feasible if there is no way to estimate, with a reasonable degree of confidence, the cost of construction in advance.

Fortunately, in the case of the bridge the use of the existing approach road structures will reduce the amount of land-based construction considerably, thus reducing also potential environmental impacts of a bridge crossing. What we see with respect to environmental issues is the need for careful and deliberate action on the part of environmental agencies of both levels of Government to ensure that potential impacts are fully mitigated.

We expect that the Royal Commission on Land Use, Land Ownership and the Landscape will address many of these issues, particularly the matter of water supply and waste management. We would like to ensure that provincial and federal government agencies are prepared for the tasks ahead of them, and would encourage the Panel to comment on that point.

Mr. Chairman, to the extent that Islanders share a real concern about potential environmental impacts of any kind, we must accept some measure of control over our freedom to do what we like with respect to social or economic development. This may mean a departure from perhaps one of the key elements of the Island way of life; that is, our innate resistance to the imposition of planning controls.

The successful proponent should receive no greater relief than any other industrial operation with respect to environmental protection requirements. We would look to the Panel for recommendations as to means for ensuring that appropriate monitoring and mitigation procedures will be in place, and would particularly urge the Province to be diligent in preparing for its role as regulator. The Royal Commission Report will be a most important document in this respect.

Social Impacts:

The social impacts of a project of this nature are too extensive to be summarized by us, or indeed by any other commentator. The new crossing could have an effect on all aspects of Island life, much like the car-ferry did 70 years ago, and the Trans-Canada Highway forty years ago. We believe however that there are inherent strengths within the Island "way of life", however it may be described, which will withstand changes brought about by the crossing. For that reason we do not propose to comment extensively on the way of life issue.

Every community has a way of life, and every way of life is in a state of constant change. PEI has changed with the automobile, the radio, air travel, shopping malls; our schools have changed, our churches have changed; government has changed; family life has changed. Even without the fixed crossing the Island Way of Life will continue its process of evolution.

That is the way it will always be, even on the Island. Life will change, and we must change with it. If we cannot adjust to the existence of a crossing connection to the mainland, then we are not likely to be able to adjust to a world community and the new trading demands and relationships which it has imposed on us. What we are discussing here is essentially the adoption of an alternate mode of transportation - nothing less, and nothing more. We are completing a missing link in the Trans-Canada Highway. We are not constructing a factory, or a polluting industry; we are proposing the construction of a bridge.

With rail transport to and from the PEI now terminated, exporters and importers on PEI now require an efficient road transport system, the achievement of which is now PEI Government policy. We believe that the crossing is consistent with this policy and will enhance the road transport network.

Economic Impacts

In the matter of economic impacts we had several specific concerns, some of which have not yet been fully addressed.

1. Jobs and Business Opportunities During Construction

Because we have not yet seen a specific tender proposal we are not yet satisfied in the amount and distribution of employment on the construction project, nor with respect to new business opportunities that the construction project will represent. Information in the reports continues to be very generic, and we would look to assurance that there will be appropriate interactions with the business community in the region, particularly with the construction sector.

Many of our businesses are relatively small and cannot turn ourselves around or gear up for major projects on short notice. If potential business and job impacts are to be actualized, it will be important that we be involved quickly in project planning.

Further, we do not want to see all construction-related skills and operations in the region drawn into this one project; we want to ensure that crossing-related opportunities are new opportunities, and not merely replacement of other projects. Thus planning will be most important and we look for assurances that there will be ample opportunities for advance planning for the supply and service industries.

It is important that the Panel recognize the need for such a process if the crossing project proceeds.

2. Impact of Job Losses

Given the current situation in Summerside we are very mindful of the impact on the economy of job losses at Marine Atlantic, which are distributed widely throughout this Province. The situation of ferry employees is very much like that of former employees of the CNR, both here and in Newfoundland, upon the termination of train services. There is unavoidable pain in the course of progress, but in Newfoundland a very acceptable termination package was provided to the affected employees.

The reports submitted to the Panel indicate that the compensation package will be left to the employer, but we wonder whether or not this will produce the most equitable results. In this case the employer does not stand to gain from termination of the ferries and may not have an interest in the compensation package.

We would simply call this matter to the attention of the panel for consideration.

However, while compensation packages may be the answer to the problems of the displaced ferry workers they will not solve the problems which the communities of Borden and Cape Tormentine will experience. The terminus for the bridge will be about three miles inland, well past the town of Borden, and visitors will have to be encouraged to turn back if they are to visit Borden.

There are two measures which immediately strike us as holding potential for the Town of Borden. The first is that a world-class bridge technical and public interpretation centre be created at Borden, presenting the complete diary of the crossing project, including all bio-physical and technical studies, and a pictoral and film diary of construction. Such a centre would be of interest to engineers, environmentalists, other scientists, students, and others from all parts of the globe, on a year-round basis. That could be a substantial market to this community.

Secondly, Borden could provide a first-class marina facility because of its secure harbor and the bridge attraction. Pleasure craft of all types will visit the area for purposes of viewing the bridge, and Borden represents a natural point of call and service centre for these relatively affluent visitors.
We believe that other opportunities will present itself for Borden, and probably for Cape Tormentine as well.

3. New Tourism Opportunities

In addition to the foregoing, new tourism opportunities have been well established in the various reports. Whether the number of new visitors is 100,000 or 150,000 seems besides the point. We know that the bridge at Oland has induced many thousands of new visitors who come for the sole purpose of examining and learning about the bridge; all of this number can be expected to include PEI on a new itinerary in future. This is a new market, and indeed a market which is of a higher spending value than our summer weekend visitors.

We can think of no real disadvantage to anyone on PEI from the tourism expansion. The problem of having too many customers would be a rarity for PEI entrepreneurs, and once we recover from the initial shock we believe that we will survive very well. This will be a new market and obviously will require many adjustments to our way of doing business; some monitoring and mitigation measures will be necessary, but those are much more readily managed than over-extended lines of credit.

Mr. Chairman, we would ask that the Panel not undertake to protect PEI from excessive tourist demand. We will get smart in a hurry if such is required of us.

4. Other Industrial and Business Opportunities

Finally, we see the need for a continuing series of discussions, or forums, on possible new business-related opportunities, during both the construction and operating phases. We think that the opportunities are there, but that does not mean that regional firms will be fully in position to grasp them. We need to very carefully analyze possible new opportunities in all sectors, including fisheries, agriculture, manufacturing, food processing, and tourism.

Many Island exporters are considering new opportunities for PEI producers in the Free Trade environment, and the Province has recently commissioned an examination of such opportunities in the interest of our exporters. These will create more pressures on our transportation system, and will increase the measure of dissatisfaction now being experienced within the existing transportation network.

Mr. Chairman and Panel Members, heavy-duty truck transport is barely thirty years old on PEI; it is perhaps not more than twenty years since it achieved any great measure of volume. As soon as truck transport began to grow, demands for improved transportation to the mainland grew with it. This is a necessary element of business and industrial growth on PEI and the demands will continue to escalate if the crossing is not constructed. We will do this exercise again and again; now that we know a crossing can indeed be built, the issue will never again die away.

In support of business growth our organization is prepared to sponsor a series of forums on bridge-related business development opportunities, once the decision to proceed has been made and even more so after a proponent has been selected. We thought we should make that offer to the Panel at this time.

Summary:

Mr. Chairman and Panel Members, we have been following this project for three years, and have given it serious and responsible study. As Islanders we have been very much concerned for the protection of the social and economic well-being of this Province. We have concluded that our future can best be protected through the initiative which the fixed crossing project represents.

We look to you for recommendations and guidelines with respect to the management of environmental and socio-economic impacts, in accordance with your mandate.

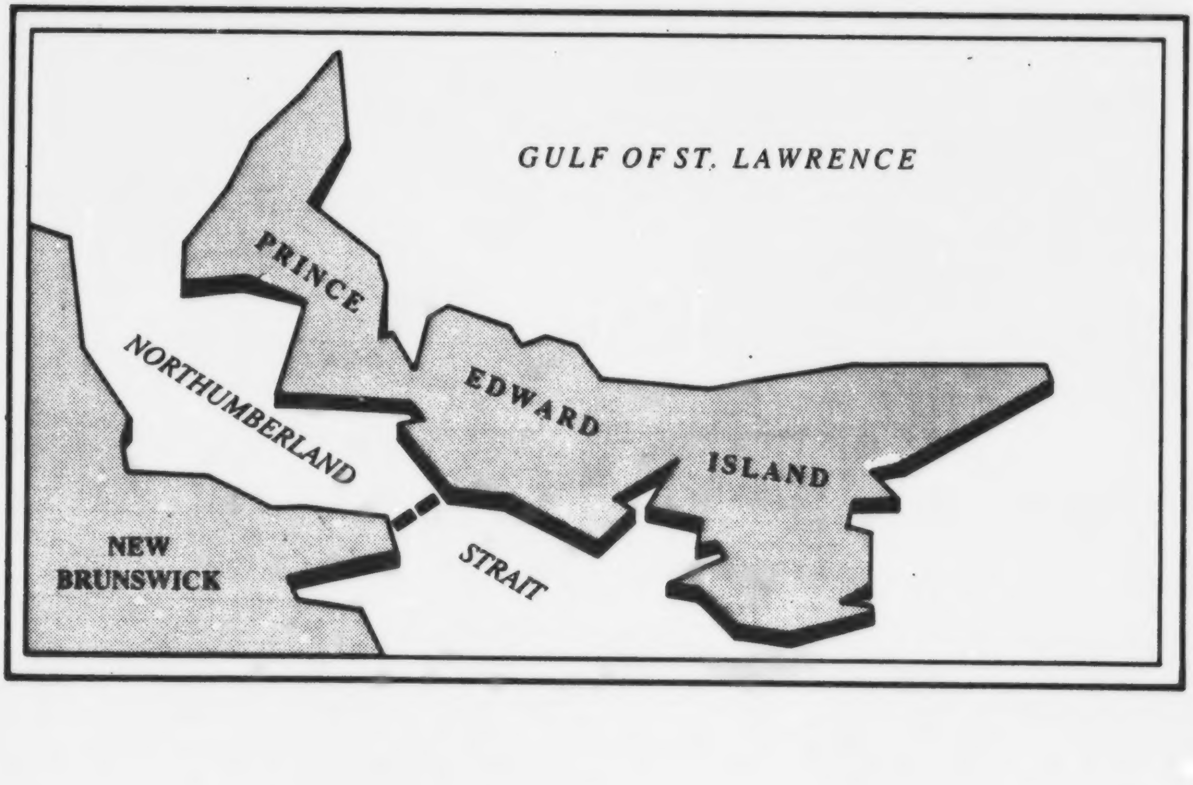
Respectfully submitted

Gary B. MacLeod
1st Vice-President,
Greater Charlottetown Area Chamber of Commerce

6 March 1990

Environment Canada Environnement Canada

Environment Canada Review
of the
NORTHUMBERLAND STRAIT CROSSING PROJECT ENVIRONMENTAL ASSESSMENT


GULF OF ST. LAWRENCE
PRINCE
EDWARD
ISLAND
NORTHUMBERLAND
STRAIT
NEW BRUNSWICK

Canada

ENVIRONMENT CANADA

REVIEW
# of the
NORTHUMBERLAND STRAIT CROSSING PROJECT
as presented to the
ENVIRONMENTAL ASSESSMENT PANEL

February, 1990

Scientific and Technical Comments

Think Recycling!
Recycled paper.

TABLE OF CONTENTS

Page

1. Introduction 1

2. Summary 2

3. Issues Analysis 9

    3.1 Effects of the Structure on Ice Regime 9
        . Drag Coefficient 10
        . Current Speed 11
        . Pier Spacing/Configuration 11
    3.2 Impacts on Wildlife and Associated Habitat 12
        . Cape Jourimain National Wildlife Area 12
        . Bird Migration 13
    3.3 Increased Tourism and Related Impacts 13
    3.4 Groundwater 14
    3.5 Sediment Transport 16
        . Shoreline Erosion 16
        . Dredging and Spoil Disposal 17
    3.6 Long Term Climate Change 18
        . Mean Sea Level Rise 19
    3.7 Contingency Planning/Emergency Response Measures 20
    3.8 Environmental Effects Monitoring 20
    3.9 Assessment of Cumulative Effects 21
    3.10 Environmental Management of the Project 22
        . Environmental Management Plan 22
        . Environmental Protection Plan 22

4. Conclusion 24

1. INTRODUCTION

Environment Canada has evaluated the Public Works Canada (PWC) submission to the Environmental Assessment Panel reviewing the proposed Northumberland Strait Crossing Project. This document summarizes our findings.

In general, we find that the complete assessment package, which includes the Bridge Concept Assessment Supplement and its support documents, the original Bridge Concept Assessment, the Generic Initial Environmental Evaluation and its associated background studies, provides a good overview of expected project impacts and possible mitigation.

None the less, Environment Canada still has concerns about the project. This report is intended to assist the Panel in identifying these areas and the proponent in addressing them. Where appropriate, recommendations on alleviation or elimination of the concerns have been made. The Department is prepared to explain or enlarge upon any of the commentary provided.

A Departmental position on the proposed Northumberland Strait Crossing Project will be presented to the Panel during the Public Hearings to be held in March.

2. SUMMARY

Overview

Throughout the environmental assessment and review of the Northumberland Strait Crossing Project, Environment Canada has identified a number of key issues which have been addressed to varying degrees by Public Works Canada (PWC). These are:

- Evaluation of critical project/environment interactions:
  - effects of the structure on ice regime;
  - wildlife and associated habitat (in particular, Cape Jourimain National Wildlife Area);
  - increased tourism and related impacts;
  - groundwater impacts;
  - sediment transport/shoreline erosion changes;
  - effects of long term climate change on the structure;
- Contingency planning/emergency response measures
- Environmental effects monitoring
- Assessment of cumulative effects
- Environmental management of the project

While PWC has endeavoured to address these issues as fully as possible, there are aspects which remain to be resolved. This summary section gives a brief overview of each of these issues, from an Environment Canada perspective.

Effects of the Structure on Ice Regime

Early in the planning of this project, the interaction between the crossing structure and sea ice was identified as a key area of possible impact. The project must be designed so that it not only can withstand the forces generated by the constantly moving ice field, but it also does not cause significant changes in prevailing ice conditions. If the presence of a bridge structure causes increased ice accumulation in the Strait, or results in a delay in ice-out, this may have a negative effect on the overall marine environment of the area, with possible implications for the existing highly valued Strait fishery. Based on a number of studies conducted over the past three years, PWC has concluded that both the above requirements can be met.

Environment Canada supports the work done prior to the Bridge Concept Assessment (BCA) Supplement. However, we believe that the latest study conducted by PWC, in response to questions raised by the Panel, is incomplete, conveys an overly optimistic view of ice jamming potential, and does not fully satisfy the intent of the Panel's question.

Work performed for the BCA Supplement clearly shows that the amount of ice jammed, as predicted by computer model, is highly dependent on a parameter known as drag coefficient. In essence, drag coefficient is a measure of the amount of driving force imparted to the ice by water passing underneath, and is a function of ice roughness. The drag coefficient used by PWC was selected from studies carried out in other geographic areas, since there are no existing data of underside roughness or drag coefficients for Northumberland Strait ice. While the value used is well supported, we believe that an accurate value, as determined from field measurement, is necessary to ensure that the results of the ice jamming analysis reflect actual conditions in the Strait.

The report should also have provided additional discussion of the effects of ice ridging and seasonal variation in predominant ice type, as well as stronger justification for using a single drag coefficient, as opposed to a range of values, as the base case for subsequent sensitivity analyses of the other parameters.

The current speed values chosen for the most recent analysis, although well supported and based on actual measurements, are not clearly discussed in terms of the Panel's request, in that it is not specified what portion or portions of the channel the values actually represent. This leaves the impression that water current values used are representative of the overall channel. The Panel, on the other hand, requested that a distinction be made between mid-channel and side-channel regimes.

Prior to execution of this project, the ice jamming computer model should be re-run, incorporating actual values in place of the assumptions used for key factors such as drag coefficient, ice strength, floe size and pier design (i.e. spacing, shape and diameter). This will be the final check of the conclusions reached based on the generic modelling conducted to date.

Impacts on Wildlife and Associated Habitat/Cape Jourimain National Wildlife Area

The construction and operation of the crossing project could adversely affect wildlife and associated habitat in the landfall areas.

PWC has devoted considerable effort to identifying and cataloguing the wildlife and associated habitat which could be adversely affected by the project, as well as documenting foreseeable effects. However, this effort seems to have stopped short of setting out mitigative measures, leaving that to the Environmental Management Plan of the successful developer. This approach may ultimately yield acceptable solutions, but does not lend itself to early planning in avoiding problem areas. There appear to be many details left to the discretion of the developer, with only the general guideline that disturbance to the Cape Jourimain National Wildlife Area is to be minimized.

The New Brunswick approach to the crossing will pass directly through the Cape Jourimain National Wildlife Area. Environment Canada remains concerned about the effects of the project on the National Wildlife Area, both during the construction and operational phases of the facility. Since we expect protection of this area to be a prominent component of the Environmental Management Plan which the successful developer will be required to submit, Environment Canada recommends that plans for the protection of the Cape Jourimain National Wildlife Area, as described in its Environmental Management Plan, be developed in consultation with the Canadian Wildlife Service of Environment Canada.

The study of possible impacts on bird migrations through the Strait appears to cover the main literature on the topic, however, the limited field observations are not adequate to answer the question posed by the Panel. In addition, the study does not clearly indicate the degree of importance of the Borden-Cape Tormentine area as a migratory route, nor does it provide adequate detail of the methodology used to allow specialist readers to fully evaluate its appropriateness.

Increased Tourism and Related Impacts

While it is recognized that the predicted increase in tourist visitation represents a significant economic and resource development opportunity to Prince Edward Island, Environment Canada remains concerned that it may also cause adverse environmental impacts extending beyond the jurisdiction of any one agency, including PWC. Increased numbers will place greater demands on available tourist attractions and place sensitive areas at risk, as overcrowding at prime attractions leads visitors to seek out less busy spots.

The assessment documents correctly identify most impacts of the project on Prince Edward Island National Park. However, the discussion of mitigation is lacking, in that there is insufficient discussion of the likelihood of success or associated cost implications (dollars and manpower). In addition, the level of detail presented in the description of suggested mitigation measures is generally insufficient to allow proper planning for implementation. This topic should be expanded upon to provide preliminary estimates of probability of success (i.e. feasibility), as well as resources required to effectively implement the proposed measures.

Although the assessment information does identify increases in traffic and visitation to the National Park area, it does not emphasize the negative aspects of congestion in an already stressed area of traffic circulation. Since aesthetics is recognized as an environmental resource, this should have been discussed.

Groundwater

During construction, significant amounts of water will be required by the developer for activities such as concrete production. As well, potable water for drinking, showers, cooking, and related needs will be required in the work camp. The potential exists for nearby groundwater resources to be adversely affected.

PWC has specified that the winning bidder will be required to carry out an assessment of groundwater resources near its base camp. This is intended to facilitate planning for prevention of groundwater contamination or conflicts with other users. Since it is not possible to know exact requirements before the final selection, Environment Canada views this as a reasonable approach. However, it is important that any work carried out by the proponent in this regard be carefully evaluated by both provincial and specialist federal authorities.

The study described in PWC's support document for this issue clearly identifies several possible serious impacts (i.e. dewatering of nearby wells, reduction or cessation of flow in nearby streams, long term effects of blasting), but there is inadequate accompanying discussion of the ramifications of these impacts, or potential mitigative measures.

The Environmental Management Plan should, based on a comprehensive hydrogeologic evaluation of the area to be carried out by the proponent, identify a suitable source of water supply, and assess the potential effects of project related groundwater withdrawals on the availability of groundwater for domestic or other purposes. In particular, the Environmental Management Plan should provide a detailed breakdown of expected groundwater demands and an analysis of how these demands will be met. The plan should also describe potential problems, including the magnitude and significance of increasing salt water intrusion, as well as measures which would be implemented to prevent or mitigate undesired effects.

Sediment Transport/Shoreline Erosion/Dredging

The presence of a bridge structure, as well as activity associated with its construction, may cause alterations in existing sediment movement patterns. Such changes may result in erosion of nearby beaches, increased suspended sediment levels in nearshore and offshore waters, or alterations in the distribution and movement of sediments at the seabed, thus potentially affecting both land use and the marine environment.

PWC's investigation of sediment transport is approached from the perspective of its effects on the design of the sub-structure. While this is certainly a critical design consideration, the matter of the structure's effects, or the effect of construction activities such as excavation or infilling, on the existing shoreline seems to have been overlooked. Further investigation is needed. Key recommendations related to shoreline erosion were made by Eastern Designers Ltd. in their Erosion, Scour and Sediment Mobility study carried out in 1987, but have not yet been implemented. The Eastern Designer's recommendations should be reviewed to ensure that they have been adequately addressed.

The successful developer's Environment Management Plan should include a detailed analysis of potential undesired sediment transport effects (i.e. shoreline erosion), assess the need for monitoring and include provisions for addressing any problems which occur as a result of the project.

With respect to the impacts of dredging and spoil disposal, the information gathered to date and presented to the Panel is not sufficient to support an Ocean Dumping application for the amount of dredging expected with this project. When applying for a permit, the proponent will be required to provide not only chemical characteristics of the dredged material, but information on the physical characteristics of the dredged spoils for each dredging site, as well as dump site characteristics, method of dumping, and analysis of potential impacts such as habitat loss, effects on other resources, aesthetics, etc. A more complete description of requirements is contained in Part VI of the Canadian Environmental Protection Act (CEPA).

Long Term Climate Change

It is essential that the crossing structure be designed to withstand anticipated meteorological and oceanographic forces. Meteorological forces include those resulting from wind, snow, freezing precipitation and stresses caused by thermal expansion or contraction of structural components. Oceanographic forces result mainly from currents, waves and sea ice.

The magnitude of environmental forces is typically predicted based on historical climate data. However, evidence is emerging that while existing standards based on historical data may still be reliable indicators of what to expect in the short term, they may not be appropriate for projects with long life expectancies. Long term climate change is predicted to be of a cumulative non-linear nature, in that the rate of change during the coming half century will probably be much less than that in the 50 years which follow. In other words, environmental conditions in year 35 of the structure's life are unlikely to be significantly different from those which exist now, but there is a high probability that those in year 100 will be.

Environment Canada is concerned that the project design may not adequately take into account the long term climate change (i.e. global warming) which now appears probable. We further believe that failure to account for this phenomena could place the structure at risk in the future.

For example, the question of mean sea level rise, like other changes which may be caused by the so-called "greenhouse effect" has been largely ignored. The height of the sea level determines where on the structure marine loads will act. While some consideration of the matter has been included in preliminary analyses of cumulative effects, design implications have not been adequately considered. This is a critical oversight which could, in the long run, have negative structural consequences.

To adequately address this issue, an advisory mechanism, with Government of Canada participation, could be formed to deal with the problem of designing for long term climate change. Advice obtained through such a mechanism should, where possible, be factored into the design of the crossing structure. This approach could significantly reduce future risk to the structure and is therefore in keeping with the present government's risk minimization objectives in relation to this particular development.

Contingency Planning/Emergency Response Measures

In general, this topic has been well addressed. The Generic Initial Environmental Evaluation (GIEE) made a number of recommendations, and the Panel has asked for and received information regarding worst case spill scenarios. To fully ensure that the proponent is prepared to handle any environmental or other emergencies which could arise, the final Contingency Plan should be developed in consultation with agencies or groups which have responsibility for and expertise in emergency response.

Environmental Effects Monitoring

Environmental effects monitoring is carried out primarily to verify impact predictions, detect project-induced change in the existing environment, evaluate the effectiveness of the mitigative techniques being used and define corrective measures. It usually involves defining areas of expected or possible change beforehand, then employing measurement programs to determine whether or not such change is occurring. Normally, some degree of pre-project measurement activity is required to provide a background against which change can be measured. A well-designed plan should describe the main areas in which monitoring efforts will be concentrated, as well as indicator variables to be monitored. There should also be a description of against what background and by what means changes will be assessed.

In the BCA Supplement, PWC states its commitment to ensuring that the developer's Environmental Management Plan for this project, of which the effects monitoring program will be a component, is satisfactory to all appropriate regulatory agencies prior to final approval of the project. Environment Canada strongly supports this commitment and believes that this approach will result in an acceptable final monitoring strategy.

Assessment of Cumulative Effects

This matter has not been addressed to the satisfaction of Environment Canada. We believe that the project's impacts cannot be looked at in isolation on an individual basis. The proponent has addressed the matter from the perspective of project impacts being compounded by non-project events (i.e. acid rain), but has not assessed the possibility of synergistic interactions between two or more separate project activities. We believe this leads to an overly optimistic impression of what adverse effects might be caused by this development.

To properly address this matter, the original risk scoping work conducted in preparation of the Generic Initial Environmental Evaluation should be reviewed with particular attention to possible synergistic or additive effects of combinations of project activities. This analysis should not be limited to examining the cumulative effect of activities occurring simultaneously, but should also consider sequential effects.

Environmental Management Strategy/Environmental Management Plan

Since a project-specific IEE (Initial Environmental Evaluation) is no longer a requirement, the main tool for ensuring minimal impacts will be the developer's Environmental Management Plan (EMP). The BCA Supplement states that the EMP must be satisfactory to all appropriate agencies prior to project approval by PWC. Environment Canada firmly believes that this approach is essential to attaining the maximum level of environmental protection for this development, and therefore strongly endorses PWC's intentions in this regard.

Environment Canada urges PWC to consider the establishment of an audit mechanism to ensure developer compliance with the terms and conditions of the Environmental Management Plan and to ensure that the environmental protection objectives of the plan are being met. Environment Canada is prepared to participate in the design and operation of such a mechanism.

Finally, to familiarize workers at all levels of the project with the procedures set forth in the Environmental Management Plan (i.e. storage and handling of hazardous materials), the proponent should consider implementing an employee training program, with the aim of increasing awareness of environmental protection as it relates specifically to this project.

3. ISSUES ANALYSIS

Environment Canada has reviewed the assessment documents presented by Public Works Canada (PWC) to the Environmental Assessment Panel. Based on this review, and the review over the past three years of various background studies and the Generic Initial Environmental Evaluation, a number of key issues which should be more fully addressed have been identified.

The major issues identified by Environment Canada in relation to this proposed development are:

- Evaluation of critical project/environment interactions:
  - effects of the structure on ice regime;
  - wildlife and associated habitat (in particular, Cape Jourimain National Wildlife Area);
  - increased tourism and related impacts;
  - groundwater impacts;
  - sediment transport/shoreline erosion changes;
  - effects of long term climate change on the structure;
- Contingency planning/emergency response measures
- Environmental effects monitoring
- Assessment of cumulative effects
- Environmental management of the project

PWC has investigated all of these critical areas to various degrees during their environmental assessment of this major project. However, close examination of the issues reveals that not all have been satisfactorily resolved.

3.1 EFFECTS OF THE STRUCTURE ON ICE REGIME

Early in the planning of this project, the interaction between the crossing structure and sea ice was identified as a key area of possible impact. The project must be designed so that it not only can withstand the forces generated by the constantly moving ice field, but it also does not cause significant changes in prevailing ice conditions. If the presence of a bridge structure causes increased ice accumulation in the Strait, or results in a delay in ice-out, this may have an undesired effect on the overall marine environment of the area, with possible implications on biological productivity in the vicinity of the project.

PWC and their consultants have made considerable progress in converging on the most likely outcome to this possible problem, and also of explaining the work done in a relatively understandable way. An initial small-scale study conducted in 1987 revealed large gaps in our understanding of the ice dynamics in the Strait. However, over the past three years, a great deal of additional information has been gathered and, based on this, PWC has concluded that the presence of a bridge structure will not cause significant changes in existing ice conditions, either during the winter or during spring breakup.

Environment Canada supports the work done prior to the Bridge Concept Assessment Supplement. However, we believe that the latest work conducted by Public Works, in response to questions raised by the Panel, is incomplete and conveys an overly optimistic view of ice jamming potential.

There are several points which need to be clarified before Environment Canada could give its full support to the conclusions reached by PWC. These relate primarily to PWC's response to the Panel's questions regarding the ice jamming analysis which was carried out using a computer model. The Panel asked that the model be re-run to examine what effect, if any, varying certain key input parameters, such as current speed and drag coefficient, would have on the analysis results.

Drag Coefficient

Water-on-ice drag coefficient is a key factor in determining the magnitude of forces generated by sea ice on marine structures. Drag coefficient is essentially a measure of the amount of driving force imparted to ice by water passing underneath. It is primarily a function of underside ice roughness, with rough ice having higher values than smooth ice.

Analysis performed for the BCA Supplement clearly shows that the amount of ice jammed, as predicted by computer model, is highly dependent on drag coefficient. Thus it is important that an accurate value be utilized. The drag coefficient used by PWC (0.02) was selected from studies carried out in other geographic areas, taking into account, as far as possible, differences in ice conditions between those areas and Northumberland Strait. This value, however, is at the high end of the range typically quoted in the literature and results in a decreased tendency, from a modelling standpoint, for jams to persist, in comparison to a lower value. This, in turn, causes the model to predict that less ice will be blocked by the bridge than might actually be the case. While the argument for selecting that particular value is reasonable, the fact is there are no data on underside roughness or drag coefficients for Northumberland Strait ice. Thus, we believe that an accurate value, as determined from field measurement, is necessary to ensure that the results of the ice jamming analysis reflect actual conditions in the Strait.

Selecting a drag coefficient value from the high end of the spectrum also suggests the possibility of a higher percentage of ridging than the 10% used in this study. If the 10% assumption is to continue to be used, and it appears reasonable to do so, then this must be taken into account when choosing an appropriate drag coefficient. The report correctly notes that ice type also has a significant effect on drag coefficient, with younger, smoother types generally offering less resistance to water movement than older, rougher ones. What is not discussed however, is that the predominant ice type will be different for each of the three ice season periods defined in the study, and the effect of this on selection of an appropriate drag coefficient.

The PWC study uses the single drag coefficient value of 0.02, as opposed to a range of values, as the base case for subsequent sensitivity analyses of the remaining parameters. Thus, the report does not tell us if the effect of modifying other parameters is the same, regardless of the drag coefficient. For example, the model may show higher sensitivity to current speed if the drag coefficient were assumed to be, say, 0.012, than it does with the value set at 0.02. This, in turn, means that the sensitivity analysis, while considered valid, does not really show the whole picture and therefore does not appear to fully satisfy the intent of the question raised by the Panel.

Similar criticism applies to the Monte Carlo simulation, with the probability density function for drag coefficient defined as having a mean of 0.02 and a standard deviation of 0.003. Since the model has already been shown to be highly sensitive to this particular parameter, an investigation of the effect of selecting a slightly lower mean or a different distribution would have given a more comprehensive indication of ice jamming potential.

Current Speed
Although the support document provides acceptable rationale for the water current values chosen, the values are not clearly discussed in terms of the Panel's request, in that it is not specified what portion or portions of the channel the values actually represent. The documents leave the impression that water currents used in the sensitivity analysis are representative of the overall channel. The Panel, on the other hand, requested that a distinction be made between mid-channel and side-channel regimes.

Additional discussion is also required to put the concept of surface currents into the context of the limitations of current data collection (i.e. surface currents typically are not measured directly, but may be inferred from near-surface values). In this case "surface" currents were measured at a depth of 4 metres. Some discussion of the implications of this, if any, should have been provided.

Pier Spacing/Configuration
Although this was not asked for by the Panel, Environment Canada is concerned about the sensitivity of the model to pier spacing and ice floe size. Earlier analyses show that reducing pier spacing from 273 to 175 metres would increase the frequency of jams only slightly. Reducing spacings to 125 metres, however, would significantly increase the frequency of jams for the given ice floe size distribution. The majority of the jam behaviour modelling

work done to date has been based on certain initial assumptions about key parameters such as pier spacing and pier shape, width, etc. The final design may vary considerably from this assumed configuration. Therefore, prior to final approval of the selected design, the potential for ice jamming should be re-evaluated, incorporating actual values (where available) in place of the earlier assumptions used for key factors such as drag coefficient, ice strength, floe size and pier design (i.e. spacing, shape and diameter). The analysis should take into account the comments presented throughout this section. This will be the final check of the conclusions reached based on the generic modelling conducted to date.

3.2 IMPACTS ON WILDLIFE AND ASSOCIATED HABITAT

The project has the potential to impact wildlife and associated habitat in the landfall areas, particularly during the construction phase, but also during the ensuing operational phase.

PWC has devoted considerable effort to identifying and cataloguing the wildlife and associated habitat which could be adversely affected by the project, as well as documenting foreseeable effects. However, this effort seems to have stopped short of setting out mitigative measures, leaving that to the Environmental Management Plan of the successful developer. This approach may ultimately yield acceptable solutions, but does not lend itself to early planning in avoiding problem areas. We are pleased, however, that PWC has committed to seeking the advice of Environment Canada (and others) prior to endorsing the successful developer's Environmental Management Plan, and also with the general guideline that disturbance to the Cape Jourimain National Wildlife Area is to be minimized.

Cape Jourimain National Wildlife Area

The New Brunswick approach to the crossing will pass directly through the Cape Jourimain National Wildlife Area. During the environmental evaluation of the project, Environment Canada has assisted PWC in better understanding and defining the sensitive environmental components of this unique area. We remain concerned about the effects of the project on the National Wildlife Area, both during construction and later, during the operational phase of the facility. It is anticipated that protection of the National Wildlife Area will be a prominent component of the successful developer's Environmental Management Plan, with possible impacts and corresponding mitigative measures clearly described in terms which lend themselves to effective implementation. To fully ensure that this important wildlife area receives the maximum protection possible, the successful developer's plans for the protection of the Cape Jourimain National Wildlife Area, as described in its Environmental Management Plan, should be drawn up in consultation with the Canadian Wildlife Service of Environment Canada.

In addition to the overall concern stated above, there were several observations made with specific reference to the documents submitted to the Panel by PWC. In the BCA Supplement, for example, Question B-1 has been answered in detail from a Prince Edward Island point of view. However, the answer given should also have included discussion of impacts on the New Brunswick side adjacent to the crossing.

Bird Migration

The study "Impacts on Bird Migrations Through the Strait (Support Document for Question E)" appears to cover the main literature on the topic, however, **the limited field observations are not adequate to answer the question posed by the Panel.**

The support document notes that radar studies carried out in the early 1970's "gave an indication of the overall importance of the Borden-Cape Tormentine area as a migratory route", but fails to tell the reader what this indication was. Is the area critically important? Moderately important? The degree of importance of the area must be clearly understood in order to allow a proper assessment of the risk which the development poses.

To better allow specialist readers to judge the appropriateness of the methodology used for the study described in the support document, details such as time of day, duration of observations and numbers of birds seen should have been included. The study also did not cover spring migration (March, April and May) and, in fact, consisted of 4 separate days of observation in September and October. The main fall migration period covers the months of October, November and December. Thus, the field observations are not considered representative of either spring or fall migration patterns.

3.3 INCREASED TOURISM AND RELATED IMPACTS

Environment Canada is concerned about the possible environmental impacts of increased tourism on Prince Edward Island. We acknowledge that increased tourism represents a significant economic opportunity to Prince Edward Island and that other agencies have a role to play in planning for the expected increase. In particular, the Canadian Parks Service will have to re-assess the capability of Prince Edward Island National Park facilities, and provincial tourism officials will need to do the same for areas under their jurisdiction. Environment Canada believes that this increase in tourism will have impacts extending beyond the jurisdiction of any one organization, including PWC. Increased numbers will place greater demands on available tourist attractions and may place sensitive areas at risk, as overcrowding at prime attractions leads visitors to seek out less busy spots. PWC's role is to lend assistance in providing the quantitative information which those agencies require to plan effectively.

By and large, Environment Canada believes that the BCA Supplement represents the most detailed identification of impacts to date, but that the treatment of mitigation is somewhat less thorough.

The report "Impacts on Terrestrial Habitat (Support Document for Question B)" correctly identifies most impacts of the project on Prince Edward Island National Park. However, it falls short in its discussion of mitigation by suggesting techniques without much apparent thought to the likelihood of success or associated cost implications (dollars and manpower). For example, while the discussion of impacts on the National Park does identify most of the likely impacts, the only real discussion of mitigation is the last paragraph on page B-6, where it is stated that "it is anticipated that through planning for sustainable development, many of these impacts can be mitigated." This type of recommended mitigation statement contains insufficient detail to allow effective planning for implementation, and tends to oversimplify the issue. To rectify this shortcoming, the discussion of suggested mitigation for impacts resulting from increased tourism should be expanded to include preliminary estimates of probability of success (i.e. feasibility), as well as resources required to effectively implement the proposed measures.

As an example of the sometimes less than thorough treatment of mitigation, in the support document's discussion of trampling of sand dune vegetation, reference is made to techniques used successfully in Prince Edward Island National Park "to control and repair much of the trampling damage". The implication here is that these measures are easily accomplished when, in fact, sand dune rehabilitation is a lengthy process and often "hit and miss" in its effectiveness. Enforcement measures are also very labour intensive and thus extremely costly.

The support document identifies increases in traffic and visitation to the National Park area, but does not emphasize the negative aspects of congestion in an already stressed area of traffic circulation. At current levels of visitation, vehicle parking facilities are often overused during peak periods, as evidenced by numerous vehicles parked on the roadside. Since aesthetics is recognized in the document as an environmental resource, this should have been discussed. An additional aspect of this particular impact is the concept of reduced visitor experience as a result of reduced aesthetics, overcrowding, etc.

3.4 GROUNDWATER

The crossing project will place significant demands on local groundwater resources. In particular, large amounts of water will be required by the developer for construction activities such as concrete production. As well, potable water for drinking, showers, cooking, etc. will be required in the work camp. The potential exists for nearby groundwater resources to be adversely affected. PWC has specified that the winning bidder will be required to carry out an assessment of the groundwater resources near its base camp. Environment Canada agrees with this requirement, as it will facilitate adequate planning to prevent groundwater contamination or conflicts with other users. Since it is not possible to know exact requirements before the final selection, this is a reasonable approach. **However, it is important that any work carried out by the proponent with regard to groundwater resources be carefully evaluated by both the province whose groundwater may be affected and specialist federal authorities.**

The study described in PWC's support document for this issue could have been more complete through the addition of an objective "to determine the potential impacts of construction infrastructure on the groundwater aquifers of the respective landfall areas" . This includes all demands/stresses introduced due to the project and any that remain after construction as part of the ongoing operation of the crossing, be it a bridge or tunnel.

The statement in the support document that "Any wells located within this zone of influence may be partially to completely de-watered depending on their proximity to the tunnel incline." should be accompanied by a discussion of mitigation for what is obviously a serious impact. If this worst case scenario is a possibility, as the statement clearly implies, it is appropriate to plan for this.

The document also points out the potential for the "reduction or cessation of stream flow (near Borden) during low flow periods as a result of tunnel de-watering". If the tunnel option is to be seriously considered, then the implications of this situation in terms of other uses of these waters, as well as effects on wetlands and fish habitat, needs to be addressed.

The document does not address the long term effects of blasting strongly enough. This technique, which could be extensively used for tunnel construction, can cause irreversible and dramatic changes to existing groundwater flow patterns, and this impact should be more fully studied.

Finally, there is mention of inducing contamination from "agricultural fields, landfills and other man-made infrastructure" and that impacts of these can be determined by monitoring. More effort should have been put into prediction of these type of impacts. Specifically, contamination sources and activities causing the contamination should have been identified. Additional thought on prevention of these impacts is needed.

To adequately address groundwater issues, the Environmental Management Plan should, based on a comprehensive hydrogeologic evaluation of the area to be carried out by the proponent, identify

a suitable source of water supply, and assess the potential effects of project related groundwater withdrawals on the availability of groundwater for domestic or other purposes. In particular, the Environmental Management Plan should provide a detailed breakdown of expected groundwater demands and an analysis of how these demands will be met. The plan should also describe potential problems, including the magnitude and significance of increasing salt water intrusion, as well as measures which would be implemented to prevent or mitigate undesired effects.

3.5 SEDIMENT TRANSPORT

The presence of a crossing structure, or activities associated with its construction, could adversely affect nearby shoreline, as well as the marine environment. Possible effects include erosion of nearby beaches, increased suspended sediment levels in nearshore and offshore waters and alterations in the distribution and movement of sediments at the seabed.

Shoreline Erosion

PWC's investigation of sediment transport problems is approached from the perspective of its affects on the design of the sub-structure, a predominant concern being undermining of the support piers. While this is certainly a critical design consideration, the matter of the structure's effects on the existing shoreline seems to have been overlooked.

Federal policy considers shoreline erosion to be a natural process for which the government cannot be held accountable. However, exception to this policy is made when the effect is induced by commercial navigation or the presence of a federal government structure, as would be the case with the crossing. In light of this, PWC should consider the need for monitoring of shoreline erosion. In this regard, to effectively monitor for these potential effects requires certain background information, such as a detailed understanding of the existing sediment regime in the immediate vicinity of the proposed structure, as well prediction of possible effects. The requirement for this information was noted by Eastern Designers Ltd. in their Erosion, Scour and Sediment Mobility study carried out in 1987 on behalf of PWC. Two of the report's most important recommendations regarding shoreline erosion effects were:

" 1. A baseline survey of the geomorphology and sediments in the near-shore zone (0 to 10 metre depth) is required to enhance our knowledge of the coastal zone in this area, improve the accuracy of the littoral sediment transport modelling and to identify changes after the bridge is constructed.

2. The effect of near-shore spacing on the littoral transport regime should be investigated in a physical model."

To the best of our knowledge, these recommendations have not yet been implemented. **Environment Canada therefore urges that the recommendations made in Eastern Designers' "Erosion, Scour and Sediment Mobility Study" be reviewed to ensure that there are no unresolved questions in this area. As well, the study conclusions should be reassessed in light of the differences between its assumptions about the structure and the final design.**

In addition, the Environment Management Plan should evaluate the need for addressing sediment transport effects in its monitoring plan and include provisions for addressing any shoreline erosion/accretion problems which occur as a result of the presence of the structure.

Dredging and Spoil Disposal

With respect to the impacts of dredging and spoil disposal, as discussed in section G of the BCA Supplement and its accompanying support document, **the information gathered to date and presented to the Panel is not sufficient to support an Ocean Dumping application for this project.** Based on Environment Canada's Interim Ocean Dumping Sampling Guideline, at least 23 sediment samples would be required for a project where removal of 300,000 cu.m. (estimate for the crossing project) of dredged spoils is expected. To date, only four samples have been analyzed. The report downplays the importance of sample collection by stating that "a few" additional sediment samples will be required.

In addition, the data provided in support of an Ocean Dumping application will have to include not only chemical characteristics of the dredged material, as is given in the assessment document, but information on the physical characteristics of the dredged spoils for each dredging site. Also required would be dump site characteristics, method of dumping, and analysis of potential impacts such as habitat loss, effects on other resources, aesthetics, etc. A more complete description of requirements is contained in Part VI of the new Canadian Environmental Protection Act (CEPA).

Finally, there are a number of technical errors and inaccuracies in Table 2 of the support document. That table summarizes the results of chemical analyses carried out on four samples collected from the crossing corridor, as well as historical data from the area. First, since the concentrations for the samples collected from the crossing alignment were determined on a dry weight basis, the phrase "dry weight" should have been included, for clarity. The number of samples should have been indicated, to give the reader a feel for the statistical significance of the data presented. The unit for Oil and Grease concentration should be ppm (parts per million), not ppb (parts per billion) as given here. In footnote 1, the unit for PCB concentration should be ppb, not ppm. The term "need to know" is not accurate as used in the footnote related to DDT concentration. The reference to the regulated limit for DDT as being 1% of the bioassay-derived concentration shown to be toxic to sensitive organisms is correct, but because no bioassay method has been specified in CEPA, an interim limit of 100 ppb is being used. Lastly, it should be noted that recently, PAH compounds have been added to the list of chemicals for which analysis is required in support of an Ocean Dumping application. These details should be attended to in any subsequent summary of sediment data, such as might be contained in the successful developer's Environmental Management Plan or an Ocean Dumping application.

3.6 LONG TERM CLIMATE CHANGE

A bridge structure across Northumberland Strait must be designed to withstand loads (forces) resulting from atmospheric and marine environmental conditions. Atmospheric loads include wind, snow, freezing precipitation and stresses due to thermal expansion or contraction of structural components. Marine loads consist primarily of currents, waves and sea ice. The magnitude and location of these marine forces depend on water depth and the elevation of mean sea level. It is critical that the proposed bridge structure be designed to withstand these naturally-occurring forces.

Existing standards used by designers to estimate environmental or climatic loads are based primarily on historical data. Evidence is emerging that while these standards may still be reliable indicators of what to expect in the short term, they may not be appropriate for projects with long life expectancies. Long term climate change is predicted to be of a cumulative non-linear nature, in that the rate of change during the coming half century will probably be much less than that in the 50 years which follow. In other words, environmental conditions at the end of year 35 of the structure's life (at which point in time the government of Canada assumes total responsibility for the operation and maintenance of the facility) may not be markedly different from those which exist now, but there is a high probability that those at the end of year 100 (design life of the structure) will be.

Environment Canada's major concern is that the project design may not adequately account for the long term climate change (i.e. global warming) which now appears probable.

A good example of this can be found on page 6-4 of the BCA, where it is stated that "The extremes of air temperature and their duration are well documented for the project site." This suggests that present temperature data are sufficient for future planning, whereas temperatures may increase by 5 or more degrees Celsius over the next 100 years. Other examples can be found throughout the various assessment documents.

PWC has stressed from the outset its intention to carry out this project in a way which minimizes risk to the government of Canada, and thereby to the general public. The risks associated with the development fall into three main categories: financial, engineering and environmental. Our concern relates directly to the engineering risk resulting from environmentally-driven forces, but has implications for the financial risk also. **If the bridge is built to conform to present standards, it may not be adequate to withstand future environmental forces.**

The situation is further compounded by the supposition that regardless of how well the structure is maintained, it will surely not be in as good condition at year 100 as it was in year 1, or even year 35. Thus, it will be less able to withstand even the loads for which it was designed, let alone loads which may have increased.

As presently planned, the developer will operate and maintain the crossing for a period of 35 years, after which it will be operated and maintained by the federal government for at least the next 65 years. Having such a long time span introduces several unusual considerations. First, the individuals involved with this project today will almost certainly not be around in 35 years, so personal or professional liability is not really a factor. Also, the consortium has little reason to worry about the fate of the structure after year 35, having at that point fulfilled its contractual obligations, as well as exhausting the revenue-generating portion of the contract. **So the developer's priorities, although perfectly understandable, do not lend themselves to ensuring that the remaining life of the structure is problem free.**

In addition, it is not the responsibility of the designers to look into this matter, as it is not their role to second guess existing standards. Instead, **Environment Canada believes it is the federal government's responsibility to ensure that the design standards for this project, as well as others of similar duration, are adequate to protect the safety and financial interests of future generations of Canadians.** This is not only an appropriate overall philosophy, but is in keeping with the present government's risk minimization objectives in relation to this particular development.

Mean Sea Level Rise

One aspect of long term climate change which may have particular consequence for the structure is the question of mean sea level (m.s.l.) rise. Sea level elevation determines where marine forces will impact on the structure. Like other impacts which may be caused by the so-called "greenhouse effect", m.s.l. rise has been largely ignored in the planning of this project. Some consideration of the matter has been included in preliminary analyses of cumulative effects, but **design implications of mean sea level rise have not been adequately considered. Environment Canada believes this is a critical oversight which could, in the** long run, have negative structural consequences. Admittedly, if there is a 1-2 metre rise in mean sea level over the next century, the fate of the fixed link will perhaps be only one of many issues, but the planned time span of the project makes it a suitable candidate for beginning to address the matter.

As an example of the inadequate consideration of mean sea level change, it is stated on page 6-5 of the BCA Supplement that " The additional effects of a long-term sea level rise, estimated to be 0.3 m/100 years, were also reviewed. Any design will incorporate this anticipated increase over the structure's 100 year life." In this case sea level rise was considered, but not to the extent recommended by Atmospheric Environment Service. AES recommends that designs incorporate a minimum mean sea level rise of 1 metre/100 years.

To adequately address this issue, an advisory mechanism, with Government of Canada participation, could be developed to deal with the problem of determining design parameters which take long term climate change into account. Advice obtained through such a mechanism should, if possible, be factored into the design of the crossing structure, as well as future projects designed for long service lives. Environment Canada is prepared to assist in the development and operation of such a mechanism.

3.7 CONTINGENCY PLANNING/EMERGENCY RESPONSE MEASURES

In general, contingency planning has been well addressed. The Generic Initial Environmental Evaluation made a number of recommendations, and the Panel has asked for and received information regarding worst case spill scenarios. To fully ensure that the final Contingency Plan is adequate to handle environmental or other emergencies which could arise, it is suggested that the final Contingency Plan be developed in consultation with agencies or groups which have specialized knowledge of and expertise in emergency response matters, such as Environment Canada and provincial Environment Departments.

3.8 ENVIRONMENTAL EFFECTS MONITORING

Environmental effects monitoring is carried out primarily to verify impact predictions, detect project-induced change in the existing environment, evaluate the effectiveness of the mitigative techniques being used and define corrective measures. It usually involves defining areas of expected or possible change beforehand, then employing measurement programs to determine whether or not such change is occurring. Normally, some degree of pre-project measurement activity is required to provide a background against which change can be measured. A well-designed plan should describe the main areas in which monitoring efforts will be concentrated, as well as indicator variables to be monitored. There should also be a description of against what background and by what means changes will be assessed.

In the BCA Supplement, PWC states its commitment to ensuring that the developer's Environmental Management Plan for this project, of which the effects monitoring program will be a component, is satisfactory to all appropriate regulatory agencies prior to final approval of the project. Environment Canada strongly supports this commitment and believes that this approach will result in an acceptable final monitoring strategy.

A critical aspect of an effective Environmental Effects Monitoring program is the concept of attributability. Simply measuring an effect is not enough: it must be clearly attributable to the project. The key to being able to do this is pre-project measurement of indicator parameters. The measurements should therefore start before construction, and as far in advance as practically possible to maximize the ability to distinguish naturally occurring change from that induced by the project. This approach also works in favour of the proponent, in that it enhances the capability to distinguish between reasonable and unreasonable claims for damage compensation.

A description of the proponent's Environmental Effects Monitoring plans should be a key requirement of the Environmental Management Plan. The plan should detail the main areas in which monitoring efforts will be concentrated, as well as outlining indicator variables to be monitored, and against what background changes will be assessed.

3.9 ASSESSMENT OF CUMULATIVE EFFECTS

This matter has not been addressed to the satisfaction of Environment Canada. We believe that the impacts of this project cannot be looked at in isolation on an individual basis. The matter has been addressed from the perspective of project impacts being compounded by non-project phenomena, but the proponent has not assessed the possibility of synergistic interactions between two or more separate project activities or impacts. We believe this leads to an overly optimistic impression of what adverse effects might be caused by this development. For instance, the initial analysis might indicate that the effects of light, dust, exhaust fumes and noise are, when considered separately, not significant. However, if one considers that these effects will probably not be occurring separately, but concurrently, it seems reasonable to suggest that the combined effect could be more significant. The same logic applies to sequential effects.

This comment was also put forward during our review of the Generic Initial Environmental Evaluation. At that time, further analysis was deferred to the Specific IEE. However, since the Specific IEE is no longer required, this remains to be addressed.

To address this matter, the original risk scoping work conducted in preparation of the Generic Initial Environmental Evaluation should be reviewed with particular attention to possible synergistic or additive effects of combinations of project activities.

3.10 ENVIRONMENTAL MANAGEMENT OF THE PROJECT

Environmental Management Plan

Since a project-specific IEE (Initial Environmental Evaluation) is no longer a requirement, the main tool for ensuring minimal impacts will be the developer's Environmental Management Plan (EMP). The BCA Supplement states that the EMP must be satisfactory to all appropriate agencies prior to project approval by PWC. Environment Canada firmly believes that this approach is essential to attaining the maximum level of environmental protection for this development, and therefore strongly endorses PWC's intentions in this regard.

The developer's overall environmental management strategy will be outlined in the Environmental Management Plan which is required prior to commencing the project. This document, when prepared, should clearly describe the specifics of the project, identifying the environmental objectives of the management team, and detailing the measures which will be undertaken to meet these objectives.

Environment Canada urges PWC to consider the establishment of an audit mechanism to ensure developer compliance with the terms and conditions of the Environmental Management Plan. This would help ensure that the environmental protection objectives of the plan are being met. Environment Canada is prepared to participate in the design and operation of such a mechanism, if requested by PWC. As one possibility, this function could be carried out by a committee of technical specialists with representation from PWC, Environment Canada, Fisheries and Oceans, and appropriate provincial agencies. This approach was used successfully by PWC during the preparation of the Generic IEE.

Environmental Protection Plan

An Environmental Protection Plan (EPP) will be a key component of a successful Environmental Management Plan, in that it will be the document which spells out the day-to-day do's and don't's required to meet the EMP's objectives (i.e. storage and handling of hazardous materials). However, in order for the Environmental Protection Plan to be effective, the initiative to adhere to its terms must come from the top. The labourer or heavy equipment operator will only attach importance to the EPP if he or she knows that it is a priority for the management team. Therefore, to familiarize workers at all levels of the project with the procedures set forth in the EPP and the terms and conditions of the Environmental Management Plan, the proponent should consider implementing an employee training program, with the aim of increasing awareness of environmental protection as it relates specifically to this project.

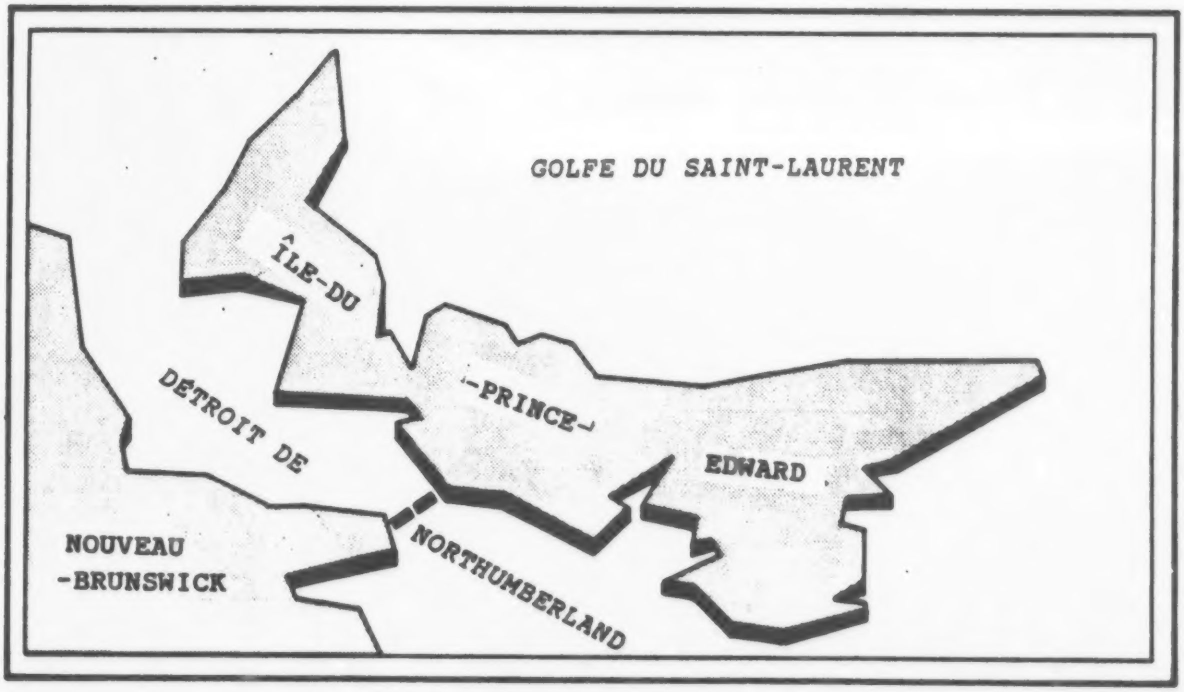
4. CONCLUSION

The Northumberland Strait Crossing Project is an ambitious undertaking for which there are few precedents in the world, let alone in similar environmental conditions. As such, there is no benchmark with which to predict impacts through direct comparison. This, in turn, dictates the application of known scientific principles in an attempt to: 1) identify all possible impacts; 2) identify mitigation for those which, upon investigation, appear most probable and; 3) determine if the remaining uncertainties or unmitigated impacts are acceptable. Over the past three years, Public Works Canada has attempted, where possible and with the assistance of resource departments such as Environment Canada, to satisfy these three requirements within the constraints of time, money and scientific capability.

It is virtually impossible to be certain of predictions involving as many variables as those in the natural environment. While the analyses carried out to date by PWC have not revealed any foreseeable impacts which are obviously completely unmitigable or would cause permanent environmental damage, a number of possible adverse environmental effects have been clearly identified. Therefore, Environment Canada believes that the questions and comments presented in this document must be addressed and resolved to ensure maximum consideration of environmental issues, should a decision be reached to proceed with the development as proposed. We further believe that the preparation of the Environmental Management Plan will represent a significant opportunity to do this, and the Department is prepared to assist PWC in that endeavour.

Environment Canada Environnement Canada

Rapport d'Environnement canada
sur le
PROJET DE RACCORDEMENT
DU DÉTROIT DE NORTHUMBERLAND
ÉVALUATION ENVIRONNEMENTALE


GOLFE DU SAINT-LAURENT
ÎLE-DU
-PRINCE-
EDWARD
DÉTROIT DE
NORTHUMBERLAND
NOUVEAU
-BRUNSWICK

Canada

POSITION D'ENVIRONNEMENT CANADA SUR LE PROJET DE RACCORDEMENT DU DÉTROIT DE NORTHUMBERLAND

Environnement Canada
Région de l'Atlantique

Février 1990

Pensez à recycler!

Papier recyclé

INTRODUCTION

Environnement Canada a étudié les documents d'évaluation environnementale préparés en faveur du Projet de raccordement du détroit de Northumberland et propose à la Commission les commentaires suivants. Environnement Canada pense que le projet pourrait être poursuivi d'une manière qui soit acceptable du point de vue de l'environnement. Néanmoins, la nature conceptuelle du projet et le manque d'informations détaillées ne permettent pas une évaluation complète des impacts éventuels sur l'environnement et des conflits éventuels en matière de développement des ressources. Nous avons, par conséquent, identifié un certain nombre de questions-clés qui devront être davantage abordées lors de la planification préalable de ce projet de développement afin de faciliter la prise des décisions de gestion concernant le plan de construction final, la construction et l'exploitation du projet "Liaison permanente". Ces questions sont les suivantes :

. L'évaluation des interactions critiques entre le projet et l'environnement :
    - le régime glaciaire
    - le changement climatique à long terme
    - l'habitat faunique et l'habitat associé
    - l'accroissement du tourisme et les impacts liés
    - les eaux souterraines
    - le transport des sédiments
. La mise en place des plans d'urgence/dispositifs d'intervention
. Le contrôle des effets sur l'environnement
. L'évaluation des effets cumulatifs
. La stratégie de gestion de l'environnement

L'ÉVALUATION DES INTERACTIONS CRITIQUES ENTRE LE PROJET ET L'ENVIRONNEMENT

Les documents d'évaluation ont, dans l'ensemble, identifié un certain nombre de questions importantes sur le plan socio-économique et sur le plan de la gestion des ressources et de l'environnement qui devront être abordées pour assurer que l'impact de la poursuite de ce projet sur l'environnement soit minimal. Bien que beaucoup des préoccupations dont nous avons fait part à Travaux Publics Canada au cours des dernières années aient été prises en considération, il reste un certain nombre de questions d'importance-clé qui devront être examinées davantage. Ces questions sont les suivantes :

Le régime glaciaire

Environnement Canada reconnaît que la nécessité d'évaluer plus précisément les effets de la construction d'une "liaison permanente" sur le régime glaciaire est une question-clé qui devra être étudiée davantage. Ceci est particulièrement important à cause des effets éventuels de la force exercée par les glaces sur ce type de construction et des implications d'une modification du régime glaciaire sur la productivité biologique. Afin d'évaluer les répercussions sur le régime glaciaire, nous avons utilisé un ordinateur pour simuler le potentiel d'embâcle glaciel à proximité du projet. Bien que TPC ait conclu que ce projet n'entraînerait pas de changements significatifs du régime glaciaire, nous sommes concernés par le fait que les tentatives de simulation utilisées pour prévoir l'embâcle glaciel étaient basées sur l'emploi d'un paramètre (le coefficient de résistance) qui a été obtenu dans un rapport de document. Dans la mesure où les valeurs du coefficient de résistance obtenues dans ces documents ne sont pas nécessairement représentatives des conditions glaciaires dans le détroit de Northumberland, il est possible que les résultats de la simulation ne constituent pas une évaluation réaliste du potentiel d'embâcle glaciel. Nous sommes également concernés par le fait que les conclusions tirées des résultats de la tentative de simulation sont basées sur un plan de construction conceptuel. Pour ces raisons, la nature et la portée des impacts que le projet aura sur l'environnement et sur la construction ne sont pas entièrement connues et devront être davantage évaluées une fois que les caractéristiques techniques du plan de construction du projet seront connues (c.-à-d. la configuration, l'agencement et l'espacement des piles). Environnement Canada recommande :

. La mise en oeuvre d'un programme de collecte des données, conçu de manière à tenir compte des variations saisonnières du régime glaciaire, dans le but d'obtenir un éventail approprié des valeurs du coefficient de résistance des glaces dans le détroit de Northumberland.

. Une fois le plan de construction final préparé, une réévaluation du potentiel d'embâcle glaciel à partir des valeurs réelles (là où elles sont disponibles) reflétant les conditions océanographiques, les caractéristiques glaciaires (p. ex. le coefficient de résistance) et les caractéristiques particulières du plan de construction. Il est également important de réévaluer les impacts de la construction sur les ressources biologiques et d'identifier la nécessité de réduire ces impacts.

Le changement climatique à long terme

Environnement Canada insiste sur la nécessité de prévoir une construction et des installations annexes qui soient sécuritaires et capables de résister aux conditions de l'environnement. À cet égard, les facteurs météorologiques, océanographiques et les autres facteurs physiques peuvent avoir un impact considérable sur la conception, la construction, l'exploitation et la sécurité d'ensemble de l'installation et cela devra être envisagé par la Commission lorsqu'elle formulera ses recommandations définitives. Sachant que l'environnement est susceptible de subir des changements considérables au cours du siècle prochain, TPC devrait examiner le risque que posent ces facteurs pour l'intégrité de la construction durant la durée de vie prévue du projet (c.-à.d. 100 ans).

Environnement Canada reste concerné par le fait que le plan de construction du projet n'a pas suffisamment tenu compte des effets du changement climatique à long terme (c.-à-d. du réchauffement global) sur la construction. Nous pensons également que le fait d'ignorer ce phénomène pourrait présenter des risques pour la construction dans l'avenir. Pour aborder cette question de manière adéquate, Environnement Canada recommande :

. Un examen détaillé des effets du changement climatique à long terme sur le type de construction. A cet égard, on pourrait mettre en place un organisme consultatif, composé de représentants du gouvernement et de la communauté scientifique, afin d'assurer que les effets du changement climatique à long terme sur la construction soient minutieusement évalués et, si nécessaire, qu'ils soient inclus dans le plan de construction du projet "Liaison permanente".

L'habitat faunique et l'habitat associé

Le projet est susceptible de nuire à l'habitat faunique et à l'habitat associé dans les régions où le pont joindra la terre, lors des phases de construction et d'exploitation de l'installation. En particulier, nous nous inquiétons du fait que l'accès au pont du côté du Nouveau-Brunswick passera directement par la réserve naturelle nationale du cap Jourimain . Cette région appartient à Environnement Canada qui est également chargé de sa gestion et elle est réservée à l'habitat du gibier d'eau et des autres oiseaux migrateurs, qui sont protégés par la Loi sur la Convention concernant les oiseaux migrateurs. La réserve est également importante sur le plan écologique dans la mesure où elle contient un certain nombre d'espéces végétales rares et de types de forêts inhabituels. Environnement Canada reste concerné par les effets du projet sur cette réserve, qui devra faire l'objet d'une considération particulière lors de la préparation du Plan de gestion de l'environnement. Environnement Canada recommande :

. Que le Plan de gestion de l'environnement indique clairement l'emplacement suggéré pour ces installations au N.-B. et sur l'Î.-P.-É. et qu'il évalue leurs effets potentiels sur l'environnement, les conflits en matière de développement des ressources et la nécessité d'une réduction de l'impact.

. Que les plans du promoteur pour la protection de la réserve naturelle nationale soient élaborés en collaboration avec le Service canadien de la faune d'Environnement Canada.

L'accroissement du tourisme et les impacts liés

La liaison permanente va rendre l'Île du Prince Edward beaucoup plus facilement accessible aux touristes. Environnement Canada reconnaît que le tourisme contribue et continuera à contribuer de manière importante à l'économie de la province. Il est essentiel de planifier soigneusement l'accroissement des visites touristiques afin de pouvoir répondre à la demande future imposée sur les parcs existants (p. ex. le parc national de l'Île-du-Prince-Edward), les terrains de campings, l'eau et les réserves naturelles en créant un minimum d'impact sur l'environnement. Bien que le supplément BCA (Évaluation du concept de pont) ait identifié un certain nombre d'impacts sur les installations des parcs et les réserves naturelles administrées par Environnement Canada, il faudrait insister davantage sur les moyens qui seront utilisés pour réduire ces impacts (c.-à-d. définir quelles sont les options à employer pour réduire les impacts négatifs) en identifiant les ressources nécessaires à la mise en oeuvre des options de réduction de l'impact et en évaluant la viabilité des techniques de réduction proposées (p. ex. la dégradation/remise en état des dunes de sable). Environnement Canada recommande :

. Qu'une analyse plus approfondie des options soit entreprise dans le Plan de gestion de l'environnement afin d'assurer que les exigences futures des touristes puissent être satisfaites de manière à respecter les objectifs en matière d'environnement, de gestion des ressources et de planification socio-économique. Le Plan de gestion de l'environnement devrait décrire en détail les coûts et la viabilité de la mise en oeuvre de ces options afin de faciliter les décisions de gestion de manière à ce que les objectifs de développement soutenable soient incorporés lors de la planification préalable de cet important projet.

Les eaux souterraines

Le projet va entraîner une demande considérable en eau dans les régions de Borden et du cap Jourimain, qui dépendent des ressources existantes de la nappe souterraine. Pendant la construction, le promoteur aura besoin de larges quantités d'eau, pour des activités telles que la production du béton. Les ouvriers du chantier auront également besoin d'eau potable pour la boisson, les douches, la cuisine et les besoins associés. Cela risque d'entraîner un abaissement local du niveau hydrostatique, ce qui aurait pour conséquence un assèchement des puits voisins ainsi que d'autres problèmes, tels qu'une réduction du débit des ruisseaux avoisinants ou un assèchement des marécages situés à proximité des chantiers de construction.

Environnement Canada appuie TPC dans son intention d'exiger que l'adjudicataire entreprenne une évaluation des ressources de la nappe souterraine à proximité de son camp de base (p. ex. une enquête sur les puits). Nos recommandations sont les suivantes :

. Que le soumissionnaire soit chargé d'entreprendre une évaluation hydrogéologique détaillée dans toutes les régions susceptibles d'être touchées afin de déterminer l'emplacement des sources appropriées d'eaux souterraines et d'évaluer les répercussions potentielles du pompage des eaux souterraines par les chantiers de travail et les autres installations sur la disponibilité de l'eau destinée à l'approvisionnement domestique et aux autres usages. Cette évaluation devrait mettre l'accent sur l'identification des demandes d'eaux souterraines et mener une analyse concernant la manière de répondre à ces demandes durant toute la période de construction.

. Que l'ampleur et la portée de l'introduction croissante d'eau salée soit évaluée et qu'on insiste davantage sur la nécessité d'une réduction éventuelle des problèmes prévus concernant la qualité et la quantité des eaux souterraines au moyen d'une discussion des mesures de prévention et de réduction.

. Que les résultats de l'évaluation des eaux souterraines soient incorporés au Plan de gestion de l'environnement.

Le transport des sédiments

La construction de la liaison permanente et le pont proprement dit sont susceptibles de modifier le processus d'érosion du littoral, le régime actuel du transport des sédiments et le processus de colluvionnement à proximité du projet.

Bien que TPC ait examiné la question du transport des sédiments, son analyse a porté essentiellement sur les effets de ce transport sur l'intégrité des fondations de la construction. Environnement Canada considère que l'approche adoptée par TPC devrait être élargie afin d'inclure une évaluation de la manière dont le projet va modifier les mouvements de courant, influer sur le transport des sédiments, le colluvionnement et les processus d'érosion du littoral à proximité du projet. La nécessité de cette analyse a également été confirmée dans une étude autonome menée par Eastern Designers Ltée en 1987. Environnement Canada recommande:

. Que le Plan de gestion de l'environnement aborde plus en détail les effets de ce projet sur le transport des sédiments, l'érosion du littoral et les processus de colluvionnement, qu'il en détermine la portée et qu'il suggère des mesures susceptibles de réduire les effets négatifs.

LA MISE EN PLACE DES PLANS D'URGENCE/DISPOSITIFS D'INTERVENTION

Dans l'ensemble, la question des plans d'urgence et des dispositifs d'intervention est une question importante et elle a été convenablement traitée dans les documents d'évaluation. Nous appuyons le TPC dans son intention de mettre en place des plans d'urgence avant de poursuivre cet important projet. Pour assurer que les plans d'urgence définitifs répondent aux exigences des organismes de réglementation, Environnement Canada fait les recommendations suivantes :

. Que le plan d'urgence définitif soit élaboré en consultation avec des organismes ou des groupes de réglementation et de gestion des ressources tels qu'Environnement Canada qui ont la responsabilité et l'expertise nécessaire pour faire face aux incidents nécessitant la mise en place de dispositifs d'intervention.

LE CONTRÔLE DES EFFETS SUR L'ENVIRONNEMENT

Bien que le soumissionnaire ait confirmé son intention de mettre en place un programme de contrôle, il est évident que ce programme ne pourra pas être totalement défini avant que plus d'informations soient disponibles sur la proposition de projet proprement dite. Nous appuyons le TPC dans sa volonté d'assurer la mise en place d'un programme de contrôle qui réponde aux exigences des organismes de réglementation.

Environnement Canada préconise le développement et la mise en oeuvre d'un programme de contrôle des effets sur l'environnement dans le but de vérifier les prédictions d'impact, de détecter les changements, d'évaluer la viabilité des techniques de réduction utilisées et de définir des mesures correctives. Le contrôle des effets et la réduction des impacts éventuels sur l'environnement résultant de ce projet ou de tout autre grand projet est un processus à long terme qui devrait être entamé avant le début du projet et se poursuivre bien au-delà de sa construction.

Environnement Canada pense que l'élaboration d'un programme de contrôle des effets devrait mettre l'accent sur les éléments permettant de mesurer la dégradation d'ensemble de l'environnement et qu'ils devraient être suffisamment précis pour mesurer non seulement la mortalité mais les contraintes accrues placées sur l'environnement par ce projet de développement. Le contrôle des résultats devrait permettre une détection rapide des impacts et devrait servir de base à la mise en oeuvre d'actions destinées à préserver l'intégrité de l'écosystème du détroit de Northumberland.

Environnement Canada reconnaît qu'un programme de contrôle des effets doit être global, fonctionnel et rentable. Il est nécessaire que le gouvernement et l'industrie y soient impliqués. Environnement Canada est en mesure de contribuer à l'élaboration et à la mise en oeuvre d'un programme acceptable de contrôle des effets et recommande :

. L'élaboration, une fois que le projet sera défini, d'un Programme de contrôle qui comprendrait la définition d'une hypothèse d'impact, l'identification des éléments précieux de l'écosystème et l'emplacement, le type et la fréquence des échantillonnages proposés. Le Programme de contrôle pourrait inclure une évaluation des effets du projet sur le régime glaciaire, le transport des sédiments ainsi que le peuplement et l'habitat faunique.

L'ÉVALUATION DES EFFETS CUMULATIFS

Environnement Canada soutient l'opinion que les impacts consécutifs à ce projet seront cumulatifs et qu'ils dépasseront de loin les environs immédiats du pont proprement dit. Bien que les documents d'évaluation des impacts aient abordé la question des effets cumulatifs, cette analyse a mis l'accent sur l'influence des facteurs externes (p. ex. la pluie acide) sur l'ampleur et la portée des effets potentiels résultant du projet proprement dit. Néanmoins, les effets cumulatifs des éléments individuels du projet et des projets de développement secondaires sur l'environnement n'ont pas été abordés. Ces impacts peuvent être considérables et doivent être davantage évalués. Conformément à ces informations, nous recommendons :

. Que le Plan de gestion de l'environnement définisse une approche plus globale afin d'assurer que les effets cumulés sur l'environnement des différents éléments du projet proposé, y compris les projets de développement secondaires, soient compris et abordés.

LA STRATÉGIE DE GESTION DE L'ENVIRONNEMENT

Environnement Canada est convaincu qu'une stratégie solide de gestion de l'environnement est le meilleur moyen global d'assurer une protection maximum de l'environnement durant les diverses phases du développement. Bien qu'il soit difficile de comprendre précisément la nature et la portée des effets de ce projet de développement sur l'environnement, il n'est pas trop tôt pour élaborer une stratégie de gestion de l'environnement. Une telle stratégie est nécessaire pour aider TPC et les autres à prendre les décisions qui s'imposent afin d'assurer que les étapes de conception, de construction et d'exploitation du développement puissent se poursuivre avec un minimum d'impact sur l'environnement.

Environnement Canada appuie le TPC dans son intention de faire examiner le Plan de gestion de l'environnement par les organismes de réglementation avant qu'il ne soit adopté. Cela permettra d'élaborer une approche plus globale pour identifier, évaluer et recommander les méthodes les plus susceptibles de favoriser la protection de l'environnement. Nous faisons par conséquent les recommandations suivantes :

. Que TPC poursuive son intention de faire examiner le Plan de gestion de l'environnement par des organismes de réglementation, avant l'adoption du projet.

De plus, Environnement Canada incite TPC à envisager la mise en place d'un mécanisme d'audit d'environnement afin d'assurer que les modalités stipulées dans le Plan de gestion de l'environnement soient respectées par le promoteur. Cette approche assurera la conformité avec les exigences du plan de gestion. Environnement Canada est prêt à participer à l'élaboration et à l'exploitation d'un tel mécanisme et recommande :

. Que TPC mette sur pied un mécanisme consultatif qui jouera le rôle d'audit d'environnement et qui assurera que l'éventail complet des questions de gestion de l'environnement et des ressources identifiées dans le Plan de gestion de l'environnement seront prises en considération et résolues pour ce projet et pour les projets de développement associés.

Finalement, afin d'assurer que les principes et les pratiques exposés dans le Plan de gestion de l'environnement soient compris par le personnel impliqué dans le projet à tous les niveaux, Environnement Canada recommande :

. L'élaboration et la mise en oeuvre d'un programme de sensibilisation à l'environnemnt destiné à familiariser tous les employés et les entrepreneurs avec les modalités du Plan de gestion de l'environnement.

CONCLUSION

Environnement Canada pense que le projet de raccordement du détroit de Northumberland pourrait être poursuivi à condition que les questions identifiées dans notre étude soient abordées lors de la planification préalable de cet important projet. Nous pensons aussi que la préparation d'un Plan de gestion de l'environnement sera une excellente occasion d'aborder et de résoudre un grand nombre de nos préoccupations.

Comme dans tout grand projet, il est indispensable d'aborder la question des impacts sur l'environnement et des mesures de réduction de ces impacts lors des phases préalables de la planification et de l'adoption. Il est également indispensable d'intégrer les facteurs environnementaux au processus de prise de décision afin d'éviter les coûts à long terme de la correction des problèmes après la survenue des impacts sur l'environnement. Environnement Canada est désireux de contribuer à cette tâche en identifiant les relations entre l'environnement et l'économie permettant de retirer les bénéfices maximums de ce projet sur le plan social, économique, et sur le plan des ressources et de la qualité de l'environnement.

En résumé, nous sommes convaincus que la protection de l'environnement devrait rester une priorité absolue durant toutes les phases de ce projet. Cela souligne la nécessité pour le soumissionnaire de travailler en collaboration avec les organismes de l'État afin de prendre des décisions de gestion en toute connaissance de cause en matière de développement des ressources et de protection de l'environnement. Environnement Canada s'engage à coopérer avec l'artisan du projet, TPC et les autres organismes fédéraux et provinciaux à cet égard.

LE RÔLE ET LE MANDAT D'ENVIRONNEMENT CANADA

L'environnement satisfait les besoins essentiels de l'humanité. Il fournit la nourriture que nous mangeons, l'air que nous respirons, l'eau que nous buvons ainsi que l'habitat et l'abri pour les êtres humains et tous les êtres vivants. La salubrité de l'environnement est essentielle à la survie et au bien-être de l'humanité et à un développement économique et social soutenu. La condition de l'environnement détermine également le maintien de la santé et de la diversité des espèces et des écosystèmes.

Dans un sens général, on peut définir l'environnement comme le système biophysique qui lie entre eux les ressources naturelles de la terre, telles que la lumière du soleil, l'eau, l'air, le sol et tous les organismes vivants y compris l'humanité. Les interactions et les mécanismes de ce système sont extrêmement complexes et ne sont que partiellement compris. Des changements dans une partie de ce système, qu'ils soient provoqués par l'homme ou naturels, peuvent avoir des conséquences imprévues et à long terme sur la stabilité, la capacité de régénération et la diversité de l'ensemble du système.

La qualité de l'environnement est influencée par les actes et les décisions de tous les individus dans leurs activités quotidiennes. Ainsi, tous les éléments de la société ont une part de responsabilité en matière de préservation et d'amélioration de la qualité de l'environnement. Dans la mesure où l'environnement est partagé par tous, les gouvernements ont un rôle particulier à jouer afin d'assurer que l'environnement est maintenu dans une condition susceptible de fournir des bénéfices soutenables à la société.

L'objectif primordial d'Environnement Canada est de "favoriser l'harmonie entre la société et l'environnement pour le bénéfice des générations de Canadiens présentes et futures". À d'autres égards, les responsabilités d'Environnement Canada sont semblables à celles des autres ministères fédéraux dont les mandats et les programmes sont "particuliers à un secteur". Le ministère est chargé de remplir certaines des obligations fédérales en ce qui concerne les ressources d'eaux intérieures, la faune, les parcs, la météorologie, les glaces marines, le contrôle de la pollution et certains autres domaines. Ces responsabilités découlent des mandats nationaux donnés par la Loi sur le ministère de l'Environnement et les autres lois administrées par le ministère de l'Environnement ayant des objectifs précis en matière de gestion des ressources naturelles.

Environnement Canada est également responsable de l'accomplissement d'autres fonctions portant sur les politiques et les opérations de tous les ministères et organismes fédéraux. Cela implique de mener des recherches, de fournir des informations et des conseils scientifiques et publics, de mettre en avant les préoccupations liées à l'environnement et d'exercer une influence sur les nombreuses politiques et les nombreux programmes de tous les ministères et organismes fédéraux. Afin d'assurer que ces efforts soient efficaces, la loi sur le ministère de l'Environnement attribue au ministre certains rôles et certains pouvoirs "horizontaux" lui permettant d'exercer l'influence nécessaire et d'assurer la coordination entre les ministères et les organismes de l'État.

Environnement Canada poursuit les quatre objectifs essentiels suivants :

- Préserver et améliorer les ressources renouvelables du Canada pour un bénéfice économique et social soutenu;

- Protéger l'environnement de l'impact négatif des activités humaines;

- Faciliter l'adaptation des activités humaines à l'environnement;

- Favoriser la compréhension et préserver la jouissance de l'héritage naturel et historique du Canada.

Pour réaliser ces objectifs, le ministère est impliqué dans les activités suivantes :

Contrôle de l'environnement et recherche scientifique. Environnement Canada est l'un des plus grands ministères de science et de technologie du gouvernement fédéral. La poursuite des connaissances scientifiques et techniques ainsi que l'acquisition et l'analyse des informations concernant l'état et les mécanismes de l'environnement et de ses éléments constituent une part très importante de ses activités et de ses programmes internes. Le ministère, par l'intermédiaire du Service de l'environnement atmosphérique, fournit des services de prévisions météorologiques, atmosphériques, marines et glaciaires, effectue des recherches sur le climat et l'atmosphère et met en place des dispositifs d'intervention et de contrôle de l'environnement. Le transfert technologique fait partie intégrante de ces activités. Par exemple, les recherches sur le climat et l'atmosphère, la surveillance des glaces, la formation des glaces, les études sur le régime des vagues sont menées en collaboration avec l'industrie, les universités et les autres ministères, ce qui permet d'assurer que les projets de construction et d'exploitation reflètent les conditions de l'environnement.

Règlements, lignes directrices et déontologie. Ceux-ci sont élaborés dans le cadre du mandat donné par les textes de législation fédérale comme la Loi canadienne sur la protection de l'environnement, la Loi sur les pêcheries et leurs règlements d'exécution tels que les Règlements sur l'immersion de déchets en mer) afin de minimiser les impacts négatifs des polluants et des substances toxiques sur la santé humaine et sur l'environnement. L'annexe 1 présente la liste complète des règlements qui doivent être appliqués par Environnement Canada. Le programme des urgences environnementales, basé sur une directive ministérielle de 1973, donne au ministère la responsabilité d'assurer que les mécanismes appropriés sont en place pour faire face aux situations d'urgence. Le ministère donne ainsi à l'industrie, aux autres ministères de l'État et aux organismes provinciaux des conseils sur les points sensibles et les priorités en matière d'environnement et sur les techniques et les équipements de nettoyage et de protection.

Gestion des ressources et conservation. Cela est entrepris directement dans les domaines relevant de la responsabilité fédérale tels que la protection des oiseaux migrateurs, la gestion de parcs nationaux et la conservation de l'héritage culturel, ainsi que la gestion des terres fédérales ou conjointement avec les provinces si la juridiction est partagée, comme dans les programmes concernant les eaux limitrophes des bassins fluviaux.

Informations, conseils et services techniques. Ce service est offert à un large éventail d'utilisateurs. Les informations et les conseils influencent les décisions du gouvernement fédéral, des autres juridictions et du secteur privé en matière de protection de l'environnement et de gestion des ressources.

ANNEXE 1

LISTE DES LOIS ADMINISTRÉES PAR ENVIRONNEMENT CANADA

Le ministre fédéral de l'Environnement est totalement responsable de l'administration des lois fédérales suivantes :

- la Loi canadienne sur la protection de l'environnement, 1988,
- la Loi sur la faune du Canada, 1973-74,
- la Loi sur l'exportation du gibier, 1970,
- la Loi sur les lieux et monuments historiques, 1970,
- la Loi sur l'amélioration des cours d'eaux internationaux, 1970,
- la Loi sur la Convention concernant les oiseaux migrateurs, 1970,
- la Loi sur les parcs nationaux et
- la Loi sur les renseignements relatifs aux modifications du temps, 1970-71-72.

En plus des lois ci-dessus, il y a certaines sections d'autres lois fédérales que le ministre a la responsabiblité d'administrer ou pour lesquelles le ministère a un rôle consultatif.

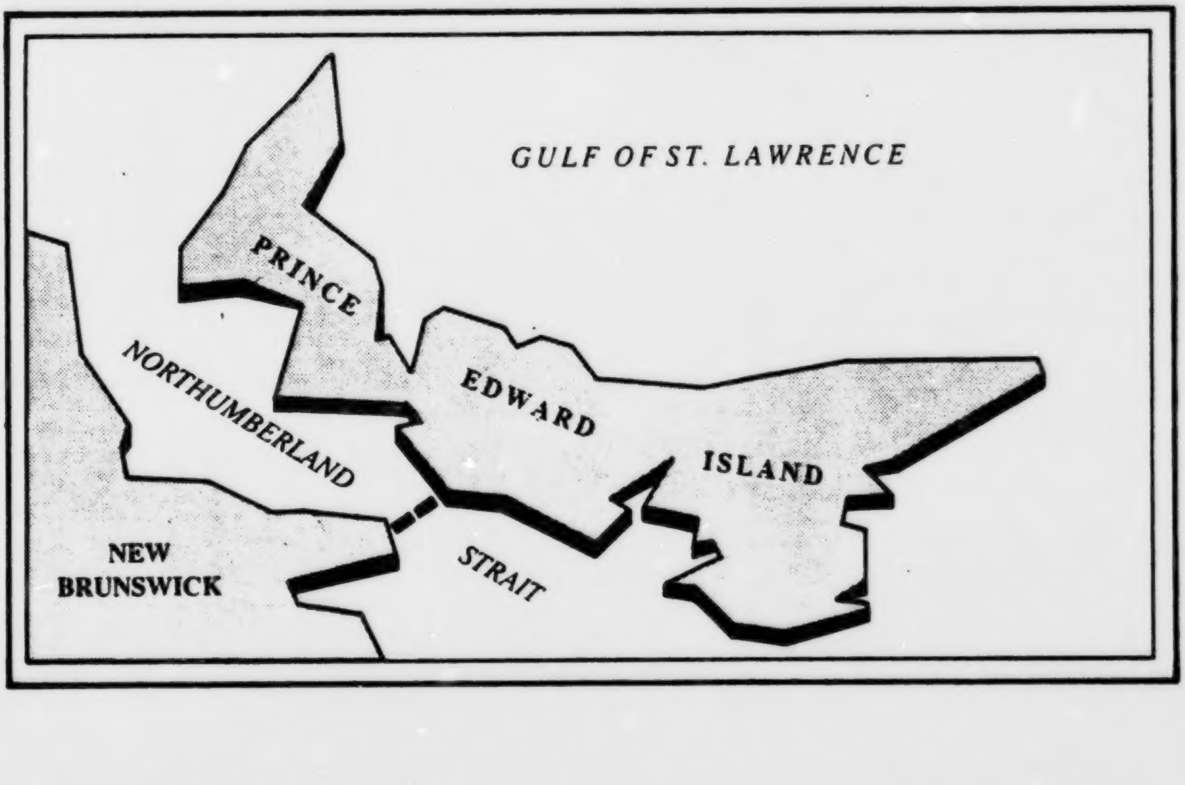
Ces lois sont les suivantes :

- la Loi concernant des champs de bataille nationaux à Québec,
- la Loi sur la prévention de la pollution des eaux arctiques,
- la Loi sur la marine marchande du Canada,
- la Loi sur le ministère des Transports (canaux),
- la Loi sur les pêcheries (Section 36),
- la Loi du Traité des eaux limitrophes internationales,
- la Loi sur la sécurité des véhicules automobiles (la clause concernant les émissions),
- la Loi sur les eaux intérieures du Nord,
- la Loi sur les produits antiparasitaires et
- la Loi sur le transport des marchandises dangereuses.

Environment Canada Environnement Canada

Environment Canada Review
of the
NORTHUMBERLAND STRAIT CROSSING PROJECT ENVIRONMENTAL ASSESSMENT

Summary of Recommendations


GULF OF ST. LAWRENCE
PRINCE
EDWARD
ISLAND
NORTHUMBERLAND
STRAIT
NEW
BRUNSWICK

Canada

INTRODUCTION

Environment Canada has reviewed the environmental assessment documents prepared in support of the Northumberland Strait Crossing Project. Environment Canada believes that the project could proceed in an environmentally acceptable manner. However, the conceptual nature of the proposal and the lack of detailed information do not permit a complete evaluation of potential environmental impacts and potential resource development conflicts. We have, therefore, identified a number of key issues which must be further addressed in the early planning of this development to facilitate management decisions on the final design, construction and operation of the Fixed Link Project. The issues include:

1.0 Evaluation of Critical Project/Environment Interactions
    1.1 Ice Regime
    1.2 Long-Term Climate Change
    1.3 Wildlife and Associated Habitat
    1.4 Increased Tourism and Related Impacts
    1.5 Groundwater
    1.6 Sediment Transport
2.0 Contingency Planning/Emergency Response Measures
3.0 Environmental Effects Monitoring
4.0 Assessment of Cumulative Effects
5.0 Environmental Management Strategy.

The nature of our concerns has been discussed in detail in the departmental position statement, as presented at the public hearing in Charlottetown on March 27, 1990, as well as in the department's Scientific and Technical Comments, submitted to the Panel on March 7, 1990. However, for the benefit of the Panel, Environment Canada's recommendations are summarized in this document.

1.0 EVALUATION OF CRITICAL PROJECT/ENVIRONMENT INTERACTIONS

1.1 Ice Regime

Environment Canada recommends that:

1.1.1 A data collection program, designed to consider seasonal variability in the ice regime, be implemented to obtain an appropriate range of drag coefficient values for Northumberland Strait ice.

1.1.2 Once the final design is prepared, the potential for ice jamming be re-evaluated using actual values (where available) which reflect oceanographic conditions, ice properties (e.g. drag coefficient) and the specific design characteristics of the structure. It is also important to re-evaluate the impacts of the structure on biological resources and to identify the need for impact mitigation.

1.2 Long-Term Climate Change

Environment Canada recommends that:

1.2.1 The effects of long-term climate change on the design of the structure be more fully addressed. In this regard, an advisory mechanism could be established, with representatives from government and the scientific community, to ensure that the effects of long-term climate change on the structure be thoroughly evaluated and, if necessary, included in the design of the Fixed Link Project.

1.3 Wildlife and Associated Habitat

Environment Canada recommends that:

1.3.1 The Environmental Management Plan clearly indicate the proposed location of facilities in NB and PEI and evaluate the potential environmental effects, resource development conflicts and the need for impact mitigation.

1.3.2 The developer's plans for the protection of the Cape Jourimain National Wildlife Area be developed in cooperation with the Canadian Wildlife Service of Environment Canada.

1.4 Increased Tourism and Related Impacts

Environment Canada recommends that:

1.4.1 A more indepth analysis of options be undertaken in the Environmental Management Plan to ensure that the future demands of tourists can be met in ways which satisfy environmental, resource management and socio-economic goals. The costs and feasibility of implementing options should be fully described in the Environmental Management Plan to facilitate management decisions such that sustainable development objectives are incorporated into the early planning of this major project.

1.5 Groundwater

Environment Canada recommends that:

1.5.1 The proponent be required to undertake a comprehensive hydrogeologic evaluation in all potentially affected areas to locate suitable sources of groundwater supply, and assess the potential effects of the withdrawals of groundwater at work camps and other facilities on the availability of water used for domestic water supply and other purposes. The focus of this evaluation should be placed on assessing groundwater demands and conducting an analysis of how these demands will be met throughout the construction period.

1.5.2 The magnitude and significance of increasing salt water intrusion be evaluated and greater emphasis be placed on identifying the need for possible mitigation of anticipated groundwater quality/quantity problems, including a discussion of preventative or mitigative measures.

1.5.3 The results of the groundwater evaluations be incorporated into the Environmental Management Plan.

1.6 Sediment Transport

Environment Canada recommends that:

1.6.1 The Environmental Management Plan more fully address the effects of this project on sediment transport, shoreline erosion and siltation processes, determine their significance and outline measures proposed to reduce adverse effects.

2.0 CONTINGENCY PLANNING/EMERGENCY RESPONSE MEASURES

Environment Canada recommends that:

2.1 The final Contingency Plan be developed in consultation with regulatory and resource management agencies or groups such as Environment Canada which have responsibility for and expertise in dealing with emergency response incidents.

3.0 ENVIRONMENTAL EFFECTS MONITORING

Environment Canada recommends that:

3.1 Once the project is defined, a Monitoring Program be developed which includes the formation of impact hypothesis, the evaluation of valued ecosystem components and the location, type and frequency of sampling proposed. The Monitoring Program could include an assessment of the effects of the project on the ice regime, sediment transport and wildlife populations and habitat.

4.0 ASSESSMENT OF CUMULATIVE EFFECTS

Environment Canada recommends that:

4.1 A more comprehensive approach be described in the Environmental Management Plan to ensure that cumulative effects associated with the various components of the proposed project on the environment, including spinoff developments, are understood and addressed.

5.0 ENVIRONMENTAL MANAGEMENT STRATEGY

Environment Canada recommends that:

5.1 PWC proceed with their intention to have the Environmental Management Plan reviewed by regulatory agencies, prior to project approval.

5.2 PWC establish an advisory mechanism to perform an environmental audit function and ensure that the full range of environmental and resource management issues identified in the Environmental Management Plan are considered and resolved for this project and associated developments.

5.3 An environmental awareness training program be designed and implemented to familiarize all employees/contractors with the terms and conditions of the Environmental Management Plan.

CONCLUSION

Environment Canada believes that the Northumberland Strait Crossing Project could proceed provided that issues identified in our review are addressed in the early planning of this major project. We also believe that the preparation of the Environmental Management Plan will represent a significant opportunity to address and resolve many of our concerns.

As for any mega-project, it is imperative that environmental impacts and mitigating measures be addressed in the early planning and approval stages. It is also essential to integrate environmental factors into the decision-making process to avoid the long-term costs of rectifying problems after environmental impacts occur. Environment Canada is willing to assist in this task by identifying the environmental/economy linkages that will maximize the social, economic, resource and environmental quality benefits of this project.

In summary, we believe that environmental protection should remain a high priority throughout all stages of the life of this project. This underlines the need for the proponent to work together with government agencies so that informed management decisions concerning resource development and environmental protection can be made. Environment Canada is committed to cooperating with the proponent, PWC, and other federal-provincial agencies in this regard.

PROVINCE OF PRINCE EDWARD ISLAND

SUBMISSION

ENVIRONMENTAL ASSESSMENT REVIEW PANEL: NORTHUMBERLAND STRAIT CROSSING PROJECT

March 27, 1990

INTRODUCTION

The Province of Prince Edward Island is very pleased to make a presentation to this Environmental Assessment Review Panel, charged with the task of assessing the environmental impacts of the proposed Northumberland Strait Fixed Crossing Project. The decision on whether or not a permanent link to the mainland should be constructed unquestionably represents the single, most important question that this Province has had to address since joining Confederation.

It is imperative that the environmental impacts of this project are understood before a final and irrevocable decision is made. The Government of Prince Edward Island extends its appreciation to the Panel for its role in helping Islanders to consider these impacts. From the Government's perspective, Mr. Chairman, your Panel has been thorough in its examination of the issues and has done a commendable job of providing an opportunity for Islanders to participate in this review.

The purpose of this brief is twofold. First, to outline for the Panel the role that the Government of Prince Edward Island has played in this process since the idea of a fixed crossing project was first put forward in 1986. Secondly, to state for the Panel, and hence, for the public, the Province's most current thinking on the project.

BACKGROUND

The Province's formal involvement with the project began in July 1986 when the Federal Government wrote to the Premier advising that three proposals to construct a permanent fixed crossing between Prince Edward Island and New Brunswick had been received.

Between July 1986 and November 1987, there were many discussions between the Federal and Provincial Governments over the process that should be followed to address the feasibility and desirability of constructing a fixed link crossing. Of particular interest to the Provincial Government were environmental impacts, specific impacts on the fishery, impacts on the Province's highway system, and impacts on the Borden area as a result of the loss of the ferry service.

As well, the Province was concerned over the lack of public information and involvement and made the point that there must be an effective process to determine the opinion of Islanders.

CONDITIONS

After the Federal Government had approved the project "in principle," the Province set out ten (10) conditions whereby it would concur that the project proceed to the next phase - a call for non-priced proposals. These ten conditions were outlined in correspondence dated November 6, 1987, from the Premier to the Federal Minister of Public Works.

1. Highways - compensation for the impact of increased traffic on the Province's highway system.
2. Wood Islands - A commitment that the Wood Islands-Caribou ferry will be maintained as an alternate system.
3. Submerged Lands - An agreement to transfer submerged lands to the control of the Federal Government for the purposes of the fixed crossing.
4. Tolls - Assurance from the Federal Government that tolls for the fixed crossing will be fair and reasonable.
5. Displaced Workers - A program to assist displaced ferry workers.
6. Economic Development (Borden) - The Federal Government must take steps to offset negative employment and income effects in Borden and area.
7. Atlantic Content - The project will maximize significant economic benefits to the region.
8. Environmental Impact - The project will meet strict environmental criteria under the E.A.R.P. process. The Premier stated that the Federal Government would be responsible for the environmental implications of the project and that the project ... "will proceed only when all significant environmental issues have been satisfactorily resolved."
9. Fisheries - In consultation with fishermen, the Federal Government must establish a mechanism to compensate fishermen whose livelihood is adversely affected by activities related to the construction of the crossing.
10. Utilities - The crossing will include a utility corridor available to the Province for the cost of the installation of transmission facilities.

PLEBISCITE

Immediately following joint concurrence that these conditions would form the basis of a Federal/Provincial Agreement, Premier Ghiz announced publicly that a plebiscite on the question of the fixed crossing would be held on January 18 to provide Islanders with "an opportunity for a wide expression of opinion." On behalf of the Province, the Institute of Island Studies was engaged to conduct a round of public meetings in the weeks leading up to the plebiscite. The purpose of these meetings was to stimulate debate and to ensure that Islanders were fully informed about the issues surrounding the project. On January 18, 1988, 59.5% voted in favour of the fixed crossing, 40.2% against.

On January 20, 1988, the Premier wrote to the Federal Minister of Public Works indicating that, on the basis of the outcome of the plebiscite, the Province was prepared to proceed further with the project; he noted, however, that a great many Islanders were concerned that the full environmental impact of the project had not been adequately determined. Shortly after this correspondence, the Province retained Dr. Ian MacQuarrie and Dr. Ian McLaren to advise it on the environmental aspects of the project.

PROPOSALS

On March 15, 1988, the Federal Government issued a formal call for proposals from the private sector to build and operate a fixed crossing. The deadline for the submissions was June 15.

Between March 15 and June 15, the Federal Government established a process to evaluate the "non-priced" proposals expected to be submitted. Evaluation teams, involving several federal agencies and private consultants, were established to assess the proposals from the following perspectives:

a) Environmental;
b) Management Approach;
c) Industrial Benefits;
d) Technical;
e) Financial.

In order to proceed to the pricing stage, approval was required by all five (5) evaluation teams.

With the exception of the Financial Committee, mandated to examine the financial aspects of the various proposals, the Province participated fully in the evaluation of the six (6) bridge and one (1) tunnel proposals that were received. The Province was satisfied that the evaluation was thorough and that the three (3) proposals that emerged from this process were equally competent against the criteria applied. In a report to the Province, Drs. MacQuarrie and McLaren confirmed their satisfaction with the evaluation process and their concurrence with the outcome.

In September of 1988, the Federal Minister of Public Works announced that, as a result of the evaluation process, three bridge proposals had been approved and that the project would advance to the pricing stage. At that point, the Province assumed that the project would proceed to bid and that, in accordance with the E.A.R.P. process, the successful developer would be required to undertake a Specific Environmental Evaluation based on a particular design and construction plan. However, this sequence of events was altered early in 1989 when the Federal Government announced that the project was being referred to an Environmental Assessment Panel. For the past year, the process has been in the hands of this Panel.

ENVIRONMENT

The foregoing clearly illustrates that the Province has been consistent in its position that a fixed crossing can only proceed with the support of Islanders, with the assurance by the Federal Government that appropriate measures will be taken to mitigate any negative impacts, and that the environmental impacts are determined to be acceptable.

The impact of a fixed crossing on the environment, and in turn, the impact of the environment on the structure itself, has been a matter of immense debate throughout this entire process. Over the past four years, a great deal of attention has been focused on the environmental implications of the project and, more specifically, about the ability of contemporary science and technology to fully understand such impacts. In the final analysis, it will be the job of this Panel to make a determination on this question. It will have to decide on the acceptable balance between those environmental risks that can be expected and those uncertainties that can never be anticipated.

The Province stresses that the Panel is not dealing with a specific proposal and thus there are some inherent limitations to ascertaining specific environmental impacts. For example, this generic assessment will not address the impact and acceptability of alternate fabrication sites. In view of this, the Province will decide what assessments and processes will be required to address specific proposal impacts.

The Province is prepared to accept the decision of this Panel in regard to the environmental issues surrounding the project. It is entirely satisfied with the approach that the Panel has taken and believes that it is proper for the Panel to be the final arbitrator of the issues before it.

In making this statement, however, the Province would be remiss if it failed to point out that the role of this Panel is to address the environmental implications of the link, both bio-physical and socio-economic. From the Province's perspective, the Panel's task is to determine if the crossing can be built within an acceptable tolerance of environmental impact. The question of whether or not it is in the social, economic, and political interest of Prince Edward Island to see the link constructed is rightfully the responsibility of the Government of Prince Edward Island acting on behalf of its citizens. Mr. Chairman, the mandate of this Panel is to arbitrate and decide on impacts; the mandate of the Provincial Government is to arbitrate and decide on interests.

COMPENSATION

As has been stated, if the fixed crossing is constructed, there will clearly be certain negative impacts that can be anticipated. These include a significant increase in traffic on Island highways, made even more acute by the abandonment of rail lines; the displacement of ferry workers resulting from the discontinuance of that service; the impact on fishermen that may result from construction; and the economic consequences that will befall the Borden area with the loss of local employment.

The Province continues to hold to the position that the Federal Government must accept responsibility for these impacts and ensure that adequate compensation is provided to offset their effects. Simply stated, compensation is a basic component of the project that must be factored into its total cost.

The Province has had some discussions with the Federal Government regarding the matter of compensation for highway upgrading and is optimistic that an Agreement can be reached if the project receives environmental approval. These discussions will also have to address the the added complications of rail line abandonment.

MONITORING

If the project proceeds, the Province believes that the impacts of the link must be closely monitored. Such monitoring will enhance the Province's ability to maximize the positive benefits resulting from the project and minimize negative consequences through timely action.

The construction of a permanent transportation corridor that will link an Island province to the rest of the country is a project that will be unique to North America. There is a great deal that can be learned from this project. It is suggested that the social, economic, and bio-physical impacts resulting from the link should be detailed from start to finish and for a period into its operation.

With this in mind, it is proposed that the Federal Government and the developer fund the establishment of a Monitoring Centre, located on Prince Edward Island and in close proximity to the construction site that will function for a minimum period of ten (10) years. A comparison can be made with the 18 km. Great Belt Link that is being constructed in Denmark. That project includes an extensive monitoring program dedicated to assessing the environmental impacts of the project. Similarly, the environmental impacts of the Northumberland Strait Crossing Project must be monitored, both during and after construction. It is quite conceivable that the development of this type of monitoring may be transferable to other projects, and that Prince Edward Island could evolve as a North American centre for this type of program.

CONCLUSION

Mr. Chairman, during the course of your proceedings and during the debate that has occurred over the last four years, a great deal of concern has been expressed about the impact of the crossing on the "Island way of life." While at times this concept is difficult to describe and perhaps means different things to each and every Islander, there is no denying that the residents of this small province are blessed with an environment and lifestyle that are the envy of a great many Canadians. It is absolutely imperative that those qualities of life that are so cherished be preserved.

The Province of Prince Edward Island will actively support the project to ensure that benefits to the Province are maximized and any negative impacts minimized provided that:

i) this Panel determines the environmental risks are acceptable and recommends that the project proceed; and,

ii) a Federal/Provincial Agreement is reached on the remaining nine (9) conditions outlined in November 1987.

Thank you for the opportunity to make this presentation, and best wishes to you as you deliberate on this most important issue.

Out of 89,230 eligible voters on P.E.I., 82% turn out to vote on issues, an admirable record. On the stormy night of the Plebiscite, 34,000 voted for more studies on the bridge or tunnel crossing. That represents a bit more than one-half the usual turn-out that night they voted--34,000 for the YES, when a NO would have meant no studies. That was the first lie. Still, today I hear and see that an OVERWHELMING vote shows P.E.I., voted for a Fixed Crossing. Overwhelming is a relative term, that overwhelming vote was just twice the number of signers recorded to repeal the seat-belt law. Add both together, and it isn't half of the Island's voters!

In Borden, last week, the project manager was asked the cost to date of the Public Works' Impact Studies. The answer to the audience was "the cost is around $10 million", upon which the listeners gasped. In the Guardian, Friday, November 25, 1988, Mr.Glenn Duncan was quoted as saying, "roughly $10 million has been spent on the project". When we ask questions at these meetings, when briefs are presented, we are seeking truth. Believe me, I am most grateful to the Panel, and for their openness, their probing for the truth, and most of all for their dedication to where Impact Studies have failed to openly explore an Environmental problem.

Since we have recently celebrated Globe 90, I would like to begin with some quotes. The first, from a Montreal minister of the Unitarian Church who states, "The Earth is becoming a patient we will have to struggle to keep alive because we have failed to respect its ways of taking care of itself." Out of Globe 90 came a statement by Environmental Minister Bouchard, that, "we are using institutions and mechanisms to rebuild a devastated economy...much like those faced a generation ago by nuclear threats". John Frazer, said earlier at the same conference that "Listen, I don't think we've got very much time, he went on, "There has never been any generation since the beginning of human history that has faced anything quite as awesome and as difficult as we're going to".

We are asked to face an awesome age, with "a shot in the arm", economics, an economic BOOST--and for whom? The Strait Crossing will bring $75 million to P.E.I., in the same period of time it will takeour economic base, our tax base for the Island to be all but destroyed, and for the following generation, 1½ billion dollars will have never come to this Island, not gone into our grocery stores, our banks, our savings--to buy a car, or to educate our children.

But the smell of money is sweet, and it addles the brain of the onlooker--the one who catches a sniff of promises and feels the itch of money. All this with no guarantees! All these goodies, without any labor specs, job definition and numbers, where will the yet unnamed specialists come from?

But money is very real to the consultants, in fact, this generic bridge has never been legitimized with a rule-of-thumb, step-by-step set of procedures on how a bridge is built. According to the December 15, 1989 SUPPLEMENT TO THE BRIDGE CONCEPT ASSESSMENT, it is specified that "To the extent that these (earlier) recommendations---from the Panel, are approved by the Ministers, they will...proceed to Stage III, Pricing." THIS was stipulated as procedure, and on to the development of the Environmental Management Plan", to include plans and schedules, and provisions for mitigation, managing and monitoring of effects is fully addressed." Now they go to the auditing during construction. Discussions at these hearings by those for a Fixed Crossing are not privy to such information as is found in The Financial Post, March 12, 1990, that "a lot of work has to be done after the hearings--to recalculate both the subsidy and finance and construction costs". That this statement changes dramatically the annual subsidy from the

Federal government and toll "revenues". The article went on that there were lots of companies...dealing with politicians. ...it made economic sense and political sense. This was all in full flower because Public Works had "assured developers ...the potential threat to P.E.I.'s roadways, small communities and provincial parks from increased traffic---had been dealt with". The smell of money is sweet, only it will not be our money, and we won't smell it. We saw a purely agricultural area in south Jersey fall victim to the likes of Donald Trump, the wage scale is the same, the turn-over is unreal, and those who had the money to start with still have the money, it's all theirs. The neighborhoods that were to be rebuilt, were levelled and 12 years later are square blocks of scarred, level land.

The Environmental Protection Plan has still to be passed, the Minister has yet to get it by business interests, still, what is in place is to be our protection against a faulty structure or unsound practices in building it. If the present protection act is not adequate, the rules by which the Impact Studies were carried out were not even followed to the specifications of the scientific community. Dr.Stephen Leatherman, of Coastal Research, University of Maryland writes the studies "are not very useful". The Impact Studies, before they were reworded and reworked, were such that he "would hardly call this an environmental evaluation".

Mr. Peter Wright, project development manager with Bechtel, Canada, formerly a part of the team of the Abegweit Crossing, Ltd., which part was rejected last September (1988),spoke to the Panel, on June 26, 1989. As a graduate of UNB, as a civil engineer, with a Masters in structural engineering from the University of Souris, registered as civil engineer in Quebec and Ontario, and also in the state of California, Mr. Wright said that PW, Canada presented to Bechtel all of their studies, with the clear NOTIFICATION that"we could not rely on that information. We could take it as a matter of course, use it to whatever degree we wanted to, but...the final design was the individual proponent's responsibility." In his statement to the Panel, Mr. Wright worried about ice forces and the bridge design, itself. He went on "There are not too many bridges in the world that have been designed in this type of environment and with the ice conditions in the Strait." Upon submitting the StAGE II proposal, they wrote a report to Public Works Canada that the height of the bridge,"with its profile, the height of the bridge across the structure, across the Strait, and its corresponding influence on the winds and safety of traffic." Next was the bridge piers, the "spacing, the blockage and the effect on the currents." Thirdly, "ice forces on the bridge piers and, fourthly, the dynamic loading on the soil below the caisson foundations at each bridge pier foundation." Bechtel found that their ice findings uncovered "were approximately double that of what Public Works Canada had indicated in their criteria". Public Works replied Bechtel could use these forces, but they would not change their criteria, and felt their criteria was in fact conservative. Public Works, in spite of Bechtel offering their information as of use to others, refused the offer saying "they chose not to". Mr. Wright went on that since ice engineering is a very specialized area of research and of engineering, his firm researched globally a number of firms who had reputable ice experience and hired as a consultant Polar Oceans Associates out of Cambridge in England. They do design criteria for submarines, et cetera, both for the United States and Britain for under Polar and North Pole studies. Hired by Bechtel, they found there would be TWICE the ice force against a cylindrical pier. Bechtel had used a cone structure so that the ice would break and flexure rather than a compressive force right against a verticle structure. As to the dynamic loading on the soil, Bechtel felt that the design criteria (of the piers) should be strengthened. If a caisson were utilized the "bearing capacity (base sway)would be increased.

Mr. Wright concluded that the ice core thickness of the ridge hitting the structure of the bridge piers in the Strait represents the consolidated portion, it,the three meters versus the two meters.

The other boast is that with the bridge the tourist trade (and remember, Public works said our highways wear and tear "had been dealt with") would increase to 1,500,000 cars. That means car emissions across the Northumberland, with its persistant and brisk winds, and we are speaking of our health, and globally, each car emits its weight in carbon dioxide each year. The Fixed Crossing will ensure each of us here tonight 22,500,00 kilometers of carbon dioxide each tourist season, and each crossing for the Islanders. In warm weather, gasoline vapors combine with nitrogen oxides in the presence of sunlight to form ground-level ozone or smog. These emissions are a major contribution to global warming and produce health hazards which cause lung problems. We will contribute to pumping an additional 1,500,00 tonnes of carbon dioxide into the atmosphere. That comment was by J.E. Newall, of Du Pont Canada,Inc., which is proof of the beginning of Global thinking. Compare the 22 kilometer units crossings, with 11,080 by each ferry combined to carry an average of 300 vehicles each trip. That service takes care of about 1 million passengers--at minimal cost to the environment,that is 110,00 kilometer unit total crossings. That is a 1400 percent lessening of pollutants into our air.

We, here on P.E.I., have alarming incidents of cancer, with world-wide studies pointing out the closer to highways, the greater the incidence of lung, colon, breast, lymphatic, intestinal cancer, and a phenonemal increase of skin cancer. One light-hearted person noted, that with the Greenhouse Effect, we will become vacationers on the Island--it will be warmer--warmer, yes indeed, dryer since the yearly snows will not come, and with that our annual water. And sunnier! Skin cancer will multiply, without the ozone our carbon dioxide has eaten away. Dermatologists cannot keep up with skin cancer cases. We have damaged this body called Earth, and it is not healing, as the good Minister said.

El Niño in shifting its position has caused the Ethopian drought, its impact on us is the sharing of the welfare of one of their villages. In warming this Planet Earth, we are being forced to see what we have done and are doing, today. I cannot imagine Prince Edward Island with 258 kilometer winds, whipping waves to three and four times the height of buildings, as it did this last month in Wales. Nor can any of us imagine the changes coming so fast that 6 mid-Western States in USA had toronados 2 to 3 months before their season. Storms that are of world-proportions did come each 100 years, now it is 5 years--only this last 3-year span has had them come in close weekly succession. Worse of all, these storms, these changes cannot be predicted. Change is coming, but as reasonable theorists have noted, it "is increasingly imperative that we reduce our uncertainties." Those uncertainties include a deluge of 16 inches of rain in Elba, Alabama, during the two-day period of March 16-17, 1990. That rain caused nearly 20 feet of standing water in the community. No one expected to salvage any items from the unexpected storm.

Winds on the Island can change inthe course of 17 hours three quadrants, with speed often doubling in several minutes. When these are accompanied with blowing snow, icing conditions or fog--the latter often comes with an abrupt wind direction change,a motorist is in some trouble, on the land. But wind increases aloft, and our Bridge, according to Mr. Wright of Bechtel, could be safely built at 16 meters across the entire Strait. He stressed that lowering the profile of the Bridge would "improve travelling conditions". He feared the very significant impact upon vehicles,asking for central dividers as well as wind barriers on each side of the structure.

Still, the Ontario Skyway have strict safety criteria, and traffic, during December through March would be banned for 26% of the time because of winds exceeding the limit. As for the effect on our area by Global Warming, the Impact Studies speak of it in isolation from the Bridge, or in terms of sea level rises, of one metre in 50 years. Instead, we should consider the weather we already accept as normal, gusts hitting a too-high structure all but broadside with 100 k to 145 k gusts, with the month of June right in this range with 137k. Now consider "Historic Storm (s)", one which recently unearthed World War II shells found on the beaches of northern France and Normandy, the week of March 9, 1990. Could a Bridge, with piers' according to the company designer's specifications stand up against "freak storms", coming one after the other? If as the same newspaper states, that the violent storms were part of severe weather that could not be predicted as to when it would end, what is the future of a jerry-built bridge, as an only means of access to other Provinces? Would it take a Berlin Airlift to get people in and out? Where would the planes come from? How long could it be sustained? Has specialized crane-bearing, sea and ice craft been written into specifications, to repair or rescue when the Bridge has a major accident? The crane must reach from sea-level to the height to raise and lower structures to and from, above and below the bridge. Can these operate in blowing snow, freezing rain and white-out conditions?

I would like to emphasize, we have no winds aloft data for the height of the bridge. It increases with accent into the atmosphere, while we are left with 10.1 metre readings and none of them pertinent to the Bridge. With a privately-owned structure, will the owners be responsible for injury and damage? Will the contractors be liable? Other bridges are proud they restrict access during dangerous conditions, we hear that the Ferry causes line-ups, other systems are intent on safety first, too.

Public Works stated that the design criteria was the individual proponent's responsibility. But, this is where governmental standards should be strictly enforced. These are never mentioned in the Impact Studies. The William Preston Lane, Jr. Memorial Bridge, commonly known as the Chesapeake Bay Bridge, was built as two lanes in the 1950's, and had 3 additional lanes added in the '60's. Using their criteria, we would have approximately 137 at-the-toll booth breakdowns (only theirs is is fair weather) which are generally flats, out of gasoline,motor trouble. In any winds 85 kilometers or over, one must call ahead, permission is given as to when wide loads, empty box trailors, or ones that could be buffeted. The experience using our criteria again,several "freeze-ups" a week, drivers unable to proceed over the structure. They do not allow cars or trucks to pile up in the area, that is the reason motorists must call ahead, when there is any weather.

Since we are in Maryland, I want to refer you to the men who have spent 20 years getting those striped bass back into those waters. It took 20 years of undoing agriculture run-off, bad dredging and toxic products in the waterways to get fishing back as a thing of pride in the Bay. It was not easy. The Environmental Protection Agency in that area has concentrated on improving their 1000 miles of waterways, 173 miles of it the Chesapeake Bay Shoreline. They watch erosion, they monitor every aspect of work on and in the waterways, and with consulting with the Federal Agency, issue permits to be used only by governmental agencies for DREDGING. They have spent years studying the effects of dredging and note their concern over impacts on fish. THEY ONLY DREDGE IN WINTER. Sometimes, if conditions of fish stock allow, they will start in late summer. Uncontrolled dredging is not allowed. Each step as a work-project progresses, a permit is given, and then the situation has to be presented with alternatives. The least damaging is chosen by the Agency, the final could result in "no action". Because of spawning characteristics of fish, shellfish and other organisms restrictions are placed to impose activity that disturb productivity or survival of eggs and larvae.

Emergent vegetation provinging nutrient transport, providing fish, other aquatic organisms, and wildlife habitat must be protected and important wetland source (Noonan's Pond) should not be disturbed, and an adequate buffer zone of no dredging should be maintained from these. The permit processes provide for public notice and public comments, which may be made on all relevant factors. The Impact Studies spoke of fill-sites, but not that they would not impact on wildlife or fish sources.

Any dredging has to go through various levels of review and investigation before the activity could actually begin. A special agency is provided to review practices of dredging to improve waterways without sacrificing the natural environment. Not many out-of-proportion structures, can boast a bridge with a little over 1/13th the size of its Island. Let them build another dozen--keep Public Works happy, and our feet will never touch the ground. Only on ground our bedrock will not liquify, as it will in the Strait.

The FerryService has been treated as a pariah during the tirades heard against when an individual had to wait for a crossing. But it has, indeed been a Service, and it has honed to a quietly reacting unit, which effeciently provides for our needs, all the while coping with the squeeze the Federal ones-in-charge puts on them, when it is expedient--or when a new plan is in the works, such as the Bridge.

The Marine Atlantic Ferry Service, has, just like the recent proponant to the Bridge stated had some late time, cancellations, during the latter part of 1986, through March, 1987. There were 25 cancellations during that period, that is not even near the 26 per cent the Onatario Skyway would have ruled under the same circumstances. According to Ontario standards, it would have meant 300 cancellations. But here on the Northumberland it was caused by heavy ice, blowing snow, 6 occasions "no ship", high winds, freezing rain, extreme ice, and on three occassions, "no traffic". Those delays, due to ice added up to 120 minutes, and there are some delays that Ottawa are personally responsible for, 52 minutes due to traffic at the booth. That could have been eliminated with just another booth being opened for the convenience of the public.

Now the nasty delays, 44 minutes all told waiting for the ambulance, called "ambulance hold-ups". There were delays for Special Events, three due to the Farm Show, that was considerable, 115 min, 32, 35 because there was a snow storm, and the traffic was having difficulty getting to the terminal. The Ferry waited. During light snowfall, there was a 16 minute delay waiting for the Dalhousie Hockey Bus., another 10 minutes waiting for a VIA bus, 11 minutes "last minute traffic". There were 5 delays because the service was 'off schedule", but for a 5-day period, 1/15/87 through 1/19/87, the winds were consistantly high, did not abate but there were no cancellations on Marine Ferry. The Chesapeake Bay Bridge, would have. Traffic would have had to call ahead to see if they could come--no radio announcements, coming from the Marine Service.

Thank you.

enclosures: Dr. Leatherman, 2 p. Science, 3/1/90 "Cars" 2/16/90/
Reference: Baltimore County Dept. Env. Protect. & Resource Management.
Date: 3/14/90 Chesapeake Bay, N.Y. Port Authority

THE UNIVERSITY OF MARYLAND

COLLEGE PARK, MARYLAND 20742
(301) 454-5167

Laboratory for Coastal Research
Rm. 1175 Lefrak Hall

January 11, 1987

Ms. Jean Klewin
Human Rights Commission
Prince Edward Island
P.O. Box 2000
Charlottetown, PEI
CANADA C1A 7N8

Dear Ms. Klewin:

I have reviewed the two reports you sent me regarding the proposed Northumberland Strait Crossing Project. The Initial Environmental Evaluation by P. Lane etal (November 1987) was not very useful. Technical information was briefly stated, and was not specifically tied to the proposed project. I would hardly call this an environmental evaluation. For instance, the ice regime is discussed, but what are the implications for ice backups on the bridge pilings? What is the likelihood of future impacts?

The second report by Eastern Designers & Co. Ltd. (July 1987) was much more complete and thorough in its presentation and analysis. This detailed report enumerated a number of major deficiences in the present knowledge of physical processes in the area, which significantly limits the ability to predict the adverse impacts of the proposed project. Specifically, there is little data on geomorphology and present-day bathymetry. Such surveys would be necessary to document changes resulting from the bridge installation. Perhaps most seriously (from my point of view) is the impact of the piers on the adjacent beaches. The pier spacing must be sufficient to allow bypassing of most of the material in the longshore sediment transport system; otherwise, there can be major problems with future shoreline erosion. It seems to me that this question must be addressed before proceeding with any construction. The proposed Oregon Inlet jetties in North Carolina have been opposed for this reason, and the project is in limbo and will probably never be built.

Other questions pertain to the scour pits around the piers. It would seem that the engineers could derive reasonable estimates (based on the many such structures elsewhere) to avoid this potential problem, but I do not see solid numbers in this report. Also, there is essentially no data on suspended sediment transport in Northumberland Strait--I am quite surprised that this fundamental, baseline data were not gathered. Again, this should have all been thoroughly researched before any project of this magnitude was ever attempted.

There are clearly going to be environmental impacts resulting from this problem. What is really troubling is that their extent is not even known. It is my recommendation that you demand answers to these questions (and perhaps others pertaining to the biological aspects), and if a suitable response is not received, I believe you have ever right and obligation to stop the project as presently envisioned.

Sincerely,

Stephen P. Leatherman

Stephen P. Leatherman, Ph.D.
Director

SPL:kll

CHARLOTTETOWN A P.E.I.

PERIOD 1955-80 PERIODE

Lat. 46° 17'N Long. 063°08'W

Elevation 55 m Altitude

	JAN JANV	FEB FEV	MAR MARS	APR AVR	MAY MAI	JUN JUIN	JUL JUIL	AUG AOUT	SEP SEPT	OCT OCT	NOV NOV	DEC DEC	YEAR ANNUEL	
PERCENTAGE FREQUENCY														FRÉQUENCE EN %
N	6.5	6.9	10.1	11.1	9.9	7.3	4.9	5.9	7.5	7.3	6.0	6.3	7.5	N
NNE	4.2	4.5	7.0	7.6	6.5	5.2	2.7	3.4	4.3	4.2	4.4	3.2	4.8	NNE
NE	3.7	4.0	6.8	6.3	4.9	4.9	2.9	3.3	3.8	3.5	3.8	3.2	4.2	NE
ENE	2.9	2.9	3.3	3.2	2.7	2.1	1.7	2.0	1.8	2.7	3.0	2.6	2.6	ENE
E	3.5	4.9	4.4	4.6	4.3	3.6	2.7	2.4	2.6	3.1	4.1	3.3	3.6	E
ESE	2.8	2.9	2.9	3.4	3.7	3.0	2.2	2.1	2.1	2.3	2.6	3.0	2.7	ESE
SE	2.8	3.2	2.5	3.6	3.8	3.2	2.8	2.4	2.6	2.9	3.7	3.0	3.1	SE
SSE	3.4	3.7	3.7	5.1	5.0	4.7	4.0	3.2	3.0	3.3	4.5	3.8	4.0	SSE
S	4.5	4.6	5.7	5.7	9.2	9.7	11.0	7.9	7.2	6.3	6.1	4.9	6.5	S
SSW	4.2	4.0	4.5	5.1	7.4	10.0	12.2	8.9	8.1	6.7	5.3	4.2	6.7	SSW
SW	5.2	5.2	5.3	6.3	9.0	13.8	15.7	14.8	12.2	9.8	5.7	5.1	9.0	SW
WSW	9.4	9.7	7.2	7.8	10.2	14.9	16.4	16.6	13.1	11.9	9.3	10.7	11.4	WSW
W	21.2	18.5	11.6	8.8	6.9	6.6	6.0	11.3	12.0	15.9	18.4	21.4	13.5	W
WNW	12.3	10.6	8.1	5.3	3.3	2.3	2.0	4.0	5.9	7.0	9.3	12.3	6.9	WNW
NW	5.9	6.6	6.7	6.5	3.9	2.4	2.8	3.7	5.1	4.8	5.3	5.4	4.8	NW
NNW	4.9	5.4	7.4	7.9	6.4	3.7	3.4	4.0	5.0	5.3	4.5	4.5	5.2	NNW
Calm	2.6	3.3	3.2	2.7	2.9	2.6	3.7	4.1	3.6	2.9	3.0	3.1	3.1	Calme
MEAN WIND SPEED IN KILOMETRES PER HOUR VITESSE MOYENNE DES VENTS EN KILOMÈTRES PAR HEURE														
N	25.2	24.4	24.2	23.1	22.5	20.5	18.8	17.1	19.9	21.7	23.9	24.1	22.0	N
NNE	27.2	25.5	26.2	23.6	21.3	20.6	18.1	18.6	18.4	22.3	25.4	24.4	22.3	NNE
NE	26.2	23.3	26.3	23.3	19.6	19.5	15.4	16.9	19.4	20.1	23.7	25.9	21.6	NE
ENE	24.7	23.5	23.8	21.8	17.9	17.5	15.0	14.9	16.7	19.1	22.1	22.6	19.9	ENE
E	21.1	21.5	19.7	17.8	17.1	16.0	13.7	13.7	13.7	15.8	18.1	20.3	17.4	E
ESE	23.5	22.9	20.5	19.7	17.2	16.0	13.9	13.5	14.5	16.0	19.0	24.0	18.6	ESE
SE	20.4	19.7	19.9	17.8	16.7	14.7	14.3	12.7	15.3	17.7	18.4	23.6	17.7	SE
SSE	21.6	20.0	19.6	19.3	17.9	16.6	13.3	15.0	16.7	18.6	20.3	22.3	18.7	SSE
S	20.6	17.7	18.8	16.6	16.8	16.5	16.3	15.8	17.9	18.4	20.2	20.7	18.0	S
SSW	18.6	17.2	17.4	16.9	16.8	16.9	16.4	15.9	17.8	18.2	19.6	17.8	17.5	SSW
SW	17.6	17.6	17.9	16.8	16.4	16.5	17.3	16.8	18.2	18.6	18.7	18.3	17.9	SW
WSW	20.3	20.6	21.1	19.4	21.7	20.8	18.6	18.5	19.0	19.8	19.6	21.5	20.1	WSW
W	22.6	21.3	22.4	20.3	19.2	18.1	16.2	16.6	16.5	20.1	20.6	22.1	19.7	W
WNW	24.0	22.2	24.3	21.6	20.8	18.8	16.0	16.3	17.5	19.4	21.6	23.3	20.5	WNW
NW	22.6	22.7	22.1	20.6	21.1	17.6	15.8	17.4	17.9	19.9	20.4	21.5	20.1	NW
NNW	25.9	24.5	24.6	22.7	23.6	20.9	18.8	18.9	20.1	21.5	24.0	24.1	22.5	NNW
All Directions														Toutes directions
	23.1	20.8	21.7	19.8	18.9	18.0	16.1	16.0	17.2	19.1	20.4	21.5	19.3	
Maximum Hourly Speed														Vitesse horaire maximale
	97 ESE	97 NNW	89 SVL	82 ESE	80 E	64 SVL	64 SE	56 NNE	77 ENE	80 W	77 SVL	97 SVL	97 SVL	
Maximum Gust Speed														Vitesse maximale des rafales
	142 SW	132 SVL	129 SE	121 NE	116 W	97 NNE	130 SE	87 NNE	121 SW	137 W	116 WSW	177 NNW	177 NNW	

Height of anemometer 14.3 m hauteur de l'anémomètre

STATION INFORMATION

Located at airport, 5 km north-northwest of the City of Charlottetown. Anemometer tower is located atop weather office building in flat terrain with no obstructions.

DONNÉES RELATIVES À LA STATION

L'anémomètre se trouve à l'aéroport, à 5 km au nord-nord-ouest de la ville de Charlottetown. La tour de l'anémomètre s'élève en haut de l'édifice du bureau de météorologie bâti sur un terrain plat sans obstacle.

SUMMERSIDE A P.E.I.

PERIOD 1955-80 PERIODE

Lat. 46°26'N Long. 063°50'W

Elevation 24 m Altitude

	JAN JANV	FEB FEV	MAR MARS	APR AVR	MAY MAI	JUN JUIN	JUL JUIL	AUG AOUT	SEP SEPT	OCT OCT	NOV NOV	DEC DEC	YEAR ANNUEL	
PERCENTAGE FREQUENCY														FRÉQUENCE EN %
N	6.5	5.5	9.0	8.9	6.4	4.1	2.6	3.1	4.2	5.3	4.6	5.0	5.4	N
NNE	4.3	5.8	8.5	10.5	8.6	6.7	3.5	4.3	5.2	4.7	4.5	3.4	5.6	NNE
NE	3.4	4.2	6.0	7.9	6.8	6.7	3.8	4.0	4.1	3.7	4.0	2.9	4.8	NE
ENE	3.2	3.6	4.4	4.8	4.5	3.3	2.6	2.5	2.6	3.0	3.3	2.8	3.4	ENE
E	3.0	3.1	4.1	4.0	4.3	3.7	2.5	2.8	2.8	3.2	3.2	3.0	3.3	E
ESE	2.1	2.2	2.5	2.4	2.6	2.3	1.7	1.8	2.0	2.1	2.6	2.3	2.2	ESE
SE	3.4	2.9	2.8	4.0	3.4	2.7	2.2	2.1	2.8	3.0	4.0	3.4	[illegible]	SE
SSE	4.4	5.3	4.7	6.9	7.5	6.4	5.5	4.3	4.1	4.9	5.7	4.2	5.3	SSE
S	5.4	6.3	8.0	8.4	11.7	13.5	15.8	11.7	9.1	8.5	7.2	6.6	9.4	S
SSW	4.8	4.7	6.0	7.6	12.5	20.4	23.6	18.9	14.6	9.4	6.0	4.3	11.0	SSW
SW	6.2	4.8	4.5	5.0	8.0	12.1	13.1	13.3	11.0	9.1	5.4	4.9	8.0	SW
WSW	8.0	9.3	5.7	4.7	4.9	4.4	8.0	7.4	8.1	9.5	8.8	9.5	7.2	WSW
W	17.7	15.1	9.5	7.1	4.6	3.7	5.0	8.4	6.4	11.6	13.7	17.8	10.2	W
WNW	11.5	10.6	8.6	5.5	3.9	2.4	3.4	4.8	6.8	8.2	10.5	12.3	7.4	WNW
NW	7.8	7.2	6.3	4.6	3.5	1.9	2.2	3.6	5.6	5.9	7.8	8.9	5.5	NW
NNW	5.1	4.1	5.0	4.0	3.0	1.8	1.6	2.4	3.5	3.9	4.0	4.7	3.6	NNW
Calm	3.7	5.3	4.4	3.7	4.7	3.9	4.7	4.6	4.7	4.0	4.7	4.0	4.4	Calme
MEAN WIND SPEED IN KILOMETRES PER HOUR VITESSE MOYENNE DES VENTS EN KILOMÈTRES PAR HEURE														
N	29.1	26.8	29.5	25.7	26.8	24.3	21.2	21.6	23.4	27.3	27.6	29.3	26.1	N
NNE	32.6	28.8	29.6	26.6	24.6	25.3	20.6	21.8	24.6	28.3	32.2	30.8	27.2	NNE
NE	26.5	21.4	24.0	21.9	20.5	21.9	19.1	18.3	22.6	22.3	27.6	23.3	23.5	NE
ENE	25.2	24.6	22.8	21.0	20.2	19.1	18.4	18.9	16.7	21.7	22.5	26.5	21.7	ENE
E	22.7	19.7	18.8	17.4	15.9	15.2	14.4	14.7	14.1	16.9	16.6	21.7	17.3	E
ESE	22.3	23.2	23.1	18.8	16.5	15.5	13.9	13.9	15.5	17.1	18.6	23.2	18.5	ESE
SE	21.8	24.0	22.5	22.9	19.7	17.9	18.1	16.8	18.6	21.3	23.9	26.8	21.3	SE
SSE	24.3	23.9	23.8	23.6	22.7	20.3	18.4	18.4	19.1	22.7	25.4	26.3	22.4	SSE
S	23.1	20.5	22.4	20.6	20.0	23.4	19.8	19.8	20.0	22.1	23.1	24.8	21.4	S
SSW	22.8	21.6	23.1	22.4	24.1	25.2	23.9	22.7	25.1	24.1	24.9	21.5	23.4	SSW
SW	20.3	21.1	23.1	20.9	24.5	21.8	22.8	21.7	22.8	22.8	22.5	23.6	22.6	SW
WSW	24.6	27.0	27.2	22.8	24.1	21.5	19.4	20.6	22.1	25.0	24.7	26.7	23.8	WSW
W	27.8	25.4	27.3	22.8	22.0	20.4	18.1	19.8	20.1	24.8	25.3	26.6	23.5	W
WNW	27.2	26.4	29.4	25.4	25.3	23.2	19.5	19.4	20.8	23.9	25.0	26.7	24.4	WNW
NW	24.1	25.2	26.2	23.5	24.5	22.2	19.0	18.9	20.6	21.9	23.0	23.7	22.7	NW
NNW	25.2	24.8	27.6	24.4	25.1	20.7	18.3	18.2	20.7	23.8	22.8	24.9	23.0	NNW
All Directions														Toutes directions
	24.8	23.5	24.8	22.1	21.6	21.4	18.5	19.2	20.6	22.6	23.4	24.9	22.4	
Maximum Hourly Speed														Vitesse horaire maximale
	121 NNE	105 NNW	105 SVL	109 NNE	77 NW	89 NNE	64 SSW	74 NNE	90 NNE	105 NNE	93 NNE	97 N	121 NNE	
Maximum Gust Speed														Vitesse maximale des rafales
	143 NNE	145 SW	135 WSW	138 NNE	100 N	137 NNW	96 SW	104 NNE	138 WSW	129 NNE	122 W	127 NNE	145 SW	

Height of anemometer 10.1 m hauteur de l'anémomètre

STATION INFORMATION

Located southeast of Malpeque Bay approximately 7 km west-northwest of the Town of Summerside on Highway 2. The site is situated in gently rolling countryside clear of all obstructions.

DONNÉES RELATIVES À LA STATION

L'anémomètre se dresse au sud-ouest de la baie Malpeque, à quelque 7 km à l'ouest-nord-ouest de la ville de Summerside, sur l'autoroute 2. L'emplacement se trouve sur un terrain légèrement ondulé et sans obstacle.

BORDEN P.E.I.

PERIOD 1963-80 PERIODE

Lat 46° 15′N Long 063° 42′W

Elevation 8 m Altitude

PERCENTAGE FREQUENCY
FRÉQUENCE EN %

	JAN JANV	FEB FEV	MAR MARS	APR AVR	MAY MAI	JUN JUIN	JUL JUIL	AUG AOUT	SEP SEPT	OCT OCT	NOV NOV	DEC DEC	YEAR ANNUEL	
N	16.7	10.8	15.9	19.0	10.7	10.8	5.3	7.4	12.9	11.5	11.9	11.3	12.0	N
NE	9.1	7.6	9.1	10.8	7.7	8.7	3.2	6.3	6.2	6.1	6.1	7.2	7.3	NE
E	8.8	8.7	10.8	13.2	12.5	6.6	6.7	8.3	5.7	7.3	9.2	8.7	8.9	E
SE	10.4	8.3	11.3	14.0	18.6	16.2	18.8	12.1	8.4	11.9	10.0	9.6	12.5	SE
S	5.9	8.9	6.4	7.9	12.8	20.3	20.9	14.1	14.1	12.3	9.6	7.3	11.7	S
SW	11.4	16.1	7.8	7.4	11.8	19.3	25.7	23.9	23.1	18.5	16.2	10.1	15.9	SW
W	20.7	25.1	27.0	14.3	14.8	11.2	13.4	14.7	15.6	16.6	22.3	27.4	18.6	W
NW	15.8	12.4	11.0	12.2	9.8	6.8	4.8	12.8	13.5	15.5	13.2	17.3	12.1	NW
Calm	1.2	2.1	0.7	1.2	1.3	0.1	1.2	0.4	0.5	0.3	1.5	1.1	1.0	Calme

MEAN WIND SPEED IN KILOMETRES PER HOUR
VITESSE MOYENNE DES VENTS EN KILOMÈTRES PAR HEURE

	JAN JANV	FEB FEV	MAR MARS	APR AVR	MAY MAI	JUN JUIN	JUL JUIL	AUG AOUT	SEP SEPT	OCT OCT	NOV NOV	DEC DEC	YEAR ANNUEL	
N	20.7	23.3	22.6	21.5	19.2	17.8	17.2	15.2	18.2	18.0	22.3	19.1	19.6	N
NE	19.7	21.7	18.4	20.1	15.9	16.3	13.0	12.3	15.4	14.8	15.7	19.2	16.9	NE
E	16.2	17.3	15.3	17.1	16.0	13.4	12.3	12.7	12.3	17.7	21.1	22.4	16.2	E
SE	22.0	17.2	17.4	17.5	18.0	16.9	15.6	16.5	16.9	21.7	24.2	22.7	18.9	SE
S	19.8	16.5	15.4	15.6	16.4	19.4	19.3	20.4	24.0	22.6	22.0	18.6	19.2	S
SW	22.3	20.9	19.1	20.1	19.3	22.7	20.7	20.6	22.3	25.8	28.9	25.6	22.4	SW
W	26.8	23.7	24.1	19.2	23.2	17.7	18.2	21.7	25.3	29.0	31.7	29.6	24.2	W
NW	25.0	22.4	25.4	22.4	24.1	19.3	18.6	20.4	23.8	26.3	30.9	31.8	24.2	NW
All Directions														Toutes directions
	22.2	20.7	20.6	19.2	18.8	18.5	17.8	18.5	21.1	23.2	25.9	25.2	21.0	
Maximum Hourly Speed														Vitesse horaire maximale
	74	64	82	57	65	55	61	56	60	76	74	92	92	
	SE	N	W	SW	W	SW	W	SW	SW	W	SVL	NW	NW	

Height of anemometer 14.3 m hauteur de l'anemomètre

STATION INFORMATION

After January 1973, the anemometer is mounted on a standard 10 m tower which is situated on the roof (second floor level) of the CN Marine Ferry Terminal Building. In the eastern semi-circle is the Northumberland Strait, while in the west, the countryside is fairly open and rises only very gradually.

DONNÉES RELATIVES À LA STATION

Aprs janvier 1973, l'anémomitre a été monte sur un mât standard de 10 m place sur le toit (niveau du second etage) du terminal des traversiers CN. A l'est se trouve le detroit de Northumberland; à l'ouest, la campagne est relativement dégagee et ne s'élve que trs progressivement.

CAPE TORMENTINE N.B.

PERIOD 1974-80 PERIODE

Lat 46°08′N Long 063°47′W

Elevation 6 m Altitude

PERCENTAGE FREQUENCY
FRÉQUENCE EN %

	JAN JANV	FEB FEV	MAR MARS	APR AVR	MAY MAI	JUN JUIN	JUL JUIL	AUG AOUT	SEP SEPT	OCT OCT	NOV NOV	DEC DEC	YEAR ANNUEL	
N	9.1	8.7	11.3	15.9	9.4	8.5	5.5	9.4	10.9	8.0	10.1	9.3	9.7	N
NE	4.9	3.6	4.4	5.7	5.5	8.8	1.9	4.6	5.4	4.5	5.7	3.2	4.8	NE
E	11.4	10.2	11.5	14.7	19.5	17.2	9.6	9.4	7.0	8.2	6.0	8.9	11.1	E
SE	6.4	5.1	8.1	8.3	9.8	15.0	7.6	7.3	5.7	6.2	6.0	6.3	7.7	SE
S	13.1	8.0	14.1	7.8	17.7	17.0	23.3	18.8	18.7	20.0	20.2	13.1	16.0	S
SW	21.8	22.0	18.5	12.6	18.2	20.6	40.4	32.2	27.4	25.8	26.9	27.7	24.6	SW
W	22.2	31.0	22.3	20.1	9.0	5.6	6.0	9.4	14.7	15.8	16.5	21.8	16.2	W
NW	8.9	9.5	8.6	12.6	8.7	5.4	4.4	5.7	8.9	10.7	7.8	8.8	8.3	NW
Calm	2.2	1.9	1.2	2.3	1.2	1.9	1.3	3.2	1.3	0.8	0.8	0.3	1.6	Calme

MEAN WIND SPEED IN KILOMETRES PER HOUR
VITESSE MOYENNE DES VENTS EN KILOMÈTRES PAR HEURE

	JAN JANV	FEB FEV	MAR MARS	APR AVR	MAY MAI	JUN JUIN	JUL JUIL	AUG AOUT	SEP SEPT	OCT OCT	NOV NOV	DEC DEC	YEAR ANNUEL	
N	28.0	23.2	28.0	23.3	23.1	20.2	19.0	16.8	22.1	26.3	26.8	29.7	23.9	N
NE	25.6	26.2	26.7	23.0	21.0	23.5	12.2	16.2	21.0	27.8	28.2	29.9	23.4	NE
E	27.0	20.5	22.1	23.9	18.1	21.0	14.5	14.2	20.3	27.9	25.0	33.4	22.3	E
SE	19.1	17.2	19.5	18.8	16.8	21.2	13.8	15.8	18.3	20.9	22.5	21.8	18.8	SE
S	21.3	18.6	22.1	18.6	21.3	23.9	18.9	19.0	19.7	20.5	23.1	22.8	20.8	S
SW	21.2	21.8	24.7	22.8	27.0	26.4	23.3	21.1	19.5	21.9	23.1	24.2	23.1	SW
W	22.8	21.7	23.1	19.7	21.3	16.3	13.6	15.6	17.3	21.0	23.1	22.3	19.8	W
NW	23.9	22.5	21.2	19.4	23.1	16.9	16.5	17.6	21.6	26.6	23.9	26.8	21.7	NW
All Directions														Toutes directions
	22.7	21.1	23.1	20.8	21.4	21.9	19.1	17.7	19.5	22.8	23.7	25.0	21.6	
Maximum Hourly Speed														Vitesse horaire maximale
	83	85	76	85	65	67	57	48	78	89	72	93	93	
	E	SW	SW	E	N	E	E	SW	N	E	N	NE	NE	

Height of anemometer 14.3 m hauteur de l'anémomètre

STATION INFORMATION

The anemometer tower is located on the roof of the CN Marine Ferry Terminal Building. In the eastern semi-circle is the Northumberland Strait while to the west, the land is relatively flat and open.

DONNÉES RELATIVES À LA STATION

Le mât de l'anemomitre a été placé sur le toit du terminal des traversiers CN. A l'est, sur un angle de 180°, se trouve le détroit de Northumberland, à l'ouest, le terrain est relaivement plat et dégagé.

SUBMISSION BY

Marine Atlantic
Marine Atlantique

TO THE

ENVIRONMENTAL ASSESSMENT
AND REVIEW PANEL
NORTHUMBERLAND STRAIT
CROSSING PROJECT

CHARLOTTETOWN, P.E.I.
28 MARCH 1990

I APPRECIATE THE INVITATION TO APPEAR BEFORE YOU, AS VICE-PRESIDENT OF MARINE ATLANTIC'S P.E.I. AND FUNDY SERVICES, TO FURTHER ACQUAINT YOU WITH THE EXISTING OPERATIONS AND FUTURE PLANS FOR THE CORPORATION'S BORDEN TO CAPE TORMENTINE FERRY SERVICE.

MR. CHAIRMAN, YOU AND THE OTHER MEMBERS OF YOUR PANEL ARE TO BE COMMENDED FOR THE DILIGENT, THOROUGH AND WIDE-RANGING MANNER IN WHICH YOU ARE CARRYING OUT YOUR BROAD MANDATE AND DISCHARGING YOUR RESPONSIBILITIES. YOUR FINAL REPORT TO GOVERNMENT WILL CARRY THE POTENTIAL TO SHAPE THE FACE OF THIS PROVINCE FOR GENERATIONS TO COME.

ACCORDINGLY, THE FINAL DECISION MUST BE THE CORRECT ONE. WE WISH YOU WELL IN YOUR DELIBERATIONS.

IF WE CAN BE OF FURTHER ASSISTANCE TO YOU IN ANY WAY, WE WOULD BE PLEASED TO DO SO.

MARINE ATLANTIC, AS A FEDERAL CROWN CORPORATION WHICH PROVIDES FERRY AND COASTAL SERVICES THROUGHOUT ATLANTIC CANADA UNDER CONTRACT WITH TRANSPORT CANADA, HAS REMAINED NEUTRAL DURING THE DEBATE ON A PROPOSED FIXED LINK BETWEEN NEW BRUNWICK AND PRINCE EDWARD ISLAND. ON OCCASION THOUGH, WE HAVE TRIED TO CORRECT MISINFORMATION WHICH HAS APPEARED IN PUBLIC WHEN IT DEALT DIRECTLY WITH OUR COMPANY'S OPERATIONS.

IT IS NOT OUR MAIN PURPOSE HERE TO DIRECTLY CHALLENGE THE CONTENTS OF STUDIES COMMISSIONED BY PUBLIC WORKS CANADA. IT'S YOUR JOB TO JUDGE THE VALIDITY AND VALUE OF THOSE STUDIES. WE RECOGNIZE THOUGH THAT YOU MUST HAVE COMPLETE, FACTUAL INFORMATION UPON WHICH TO BASE YOUR FINAL REPORT AND RECOMMENDATIONS. WE ARE PREPARED TO ASSIST YOU WITH THAT QUEST. I ALSO INTEND TO ADDRESS LATER IN THIS PRESENTATION SEVERAL SPECIFIC ISSUES WE HAVE IDENTIFIED IN THE STUDIES AND ELSEWHERE WHICH, WE WOULD SUGGEST, DESERVE YOUR CAREFUL EXAMINATION.

BEFORE I DO THAT, I WILL PROVIDE YOU WITH A BRIEF OVERVIEW OF OUR P.E.I. FERRY SERVICE, FOCUSING MAINLY ON LEVEL OF SERVICE AND TRAFFIC VOLUMES, FINANCIAL HIGHLIGHTS AND FUTURE PLANS, SHOULD THE FERRY SERVICE CONTINUE TO BE REQUIRED. THE TABLES ATTACHED TO THIS WRITTEN BRIEF WILL SUPPLEMENT MY COMMENTS WITH GREATER DETAIL.

MARINE ATLANTIC FULFILLS THE CONSTITUTIONAL OBLIGATION OF THE GOVERNMENT OF CANADA TO MAINTAIN A CONTINUOUS TRANSPORTATION LINK BETWEEN P.E.I. AND THE MAINLAND OF CANADA. THE DEPTH AND SCOPE OF THAT COMMITMENT HAVE BEEN AMPLY DEMONSTRATED OVER THE YEARS. THE MANNER, LEVEL AND QUALITY OF FERRY SERVICE TO THE ISLAND HAS BEEN CONSTANTLY EXPANDED AND IMPROVED IN RESPONSE TO THE CHANGING TRANSPORTATION NEEDS OF THE PROVINCE. FERRIES HAVE PERFORMED FAITHFULLY BETWEEN BORDEN AND CAPE TORMENTINE SINCE 1917. IN THE COURSE OF THAT LENGTHY SERVICE, THEY HAVE EARNED THE RESPECT AND TRUST OF ISLANDERS AND A WELL-DESERVED REPUTATION FOR BEING A RELIABLE, SAFE AND INEXPENSIVE LINK BETWEEN THIS ISLAND PROVINCE AND THE MAINLAND.

EQUALLY IMPORTANT, AS OUR RECORD OVER 73 YEARS SHOWS, OUR FERRIES HAVE PROVEN BEYOND QUESTION THAT THEY ARE A MODE OF TRANSPORTATION WHICH RESPECTS THE FRAGILE ENVIRONMENT IN WHICH THEY OPERATE. MARINE ATLANTIC IS JUSTIFIABLY PROUD OF ITS ENVIRONMENTAL RECORD AND THE LEGACY IT CARRIES OF SERVICE TO GENERATIONS OF ISLANDERS AND VISITORS WHO HAVE TRAVELLED WITH US FOR BUSINESS OR FOR PLEASURE. WE CAN CONTINUE TO UPHOLD THAT TRUST, THAT CONFIDENCE.

A REVIEW OF 1989, THE BUSIEST YEAR IN THE HISTORY OF THE P.E.I. FERRY SERVICE, UNDERLINES HOW DEEP OUR COMMITMENT RUNS. WE PROVIDED AN UNPARALLELED LEVEL OF SERVICE. WE RESPONDED IN WAYS DESIGNED TO MEET PEAK DEMAND IN SUMMER BETTER AND TO PROVIDE BETTER SERVICE TO TRUCKERS YEAR-ROUND. DUTY WAS DONE 12,371 TIMES IN 1989, 200 MORE THAN 1988.

OUR SHIPS AND EMPLOYEES WILL DO THEIR PART EVEN MORE OFTEN THIS YEAR. PLANS CALL FOR 13,094 SINGLE TRIPS, OVER 700 MORE THAN LAST YEAR'S RECORD. ALMOST 1.9 MILLION PASSENGERS, 686,500 PASSENGER-RELATED VEHICLES AND 153,000 COMMERCIAL VEHICLES TRAVELLED ACROSS THE STRAIT ON OUR SHIPS LAST YEAR. THOSE TOTALS FOR PASSENGERS AND PASSENGER-RELATED VEHICLES BOTH INCREASED 4 PER CENT AND GROWTH IN COMMERCIAL TRAFFIC AMOUNTED TO 8 PER CENT.

THE HIGHER RATE OF INCREASE FOR THE TRUCKING SECTOR IS RELATED TO THE DECLINE OF RAIL TRAFFIC, WHICH DISAPPEARED ALTOGETHER IN LATE DECEMBER, 1989.

We expect passenger traffic to grow in the modest 1.5 per cent range per year. Since the conversion of railcar traffic to trucks has now been completed, truck traffic should also grow about 1.5 per cent annually.

Understandably, our ferries are busiest in the summer when Prince Island Island is a popular tourist destination. Forty per cent of all 1989 passenger traffic travelled in just two months, July and August. Marine Atlantic responds to the seasonal demand by increasing the number and frequency of vessel crossings. Our ships made about 3,000 single crossings in July and August, 45 more than during the same period the year before. We will increase that number by 200 or more this summer.

As those figures clearly demonstrate, we have delivered on our commitment to the Island tourism industry. We will honor that partnership as long as we are called upon to do so. With the kind of summer service we have provided, we have every reason to believe it has been an important factor in the continued growth of tourism on the Island.

It's worth noting that our P.E.I. ferries are much more than simply passive vehicles which take tourists from one shore to another. The ships themselves and their nine-mile voyage across a body of salt water offer visitors a suitably brief nautical experience -- a unique experience for many people -- that occupies a prominent place in the total package that makes a vacation in our province so enjoyable.

Just how much tourists like the ferry ride was shown in an exit survey done by the P.E.I. Department of Tourism and Parks. Over 70 per cent of visitors to the province said the ferries are one of the things they like about P.E.I.

Marine Atlantic works on its own and with tourism departments and tourism organizations throughout Atlantic Canada to attract visitors to the Atlantic region and we look after them well while they are in our care. We at Marine Atlantic are ever mindful that our ships and employees help form the first and last impressions for thousands of people who land on the shores of this province every year. We take seriously our responsibility to deliver to the shores of this province the people who make tourism such a vibrant, prosperous and exciting industry whose future holds much promise, if managed properly.

Since traffic across the Strait has been going up you might think our federal subsidy must be going up too. In fact, the opposite is true. We're actually doing a better job, and doing our job more often than ever before, with less money from Ottawa.

The amount of government subsidy, in 1989 dollars, dropped $7.5 million from a high of $28.6 million 11 years ago to just $21 million last year.

We managed to reduce the level of subsidy by an impressive 27 per cent. This dramatic improvement in productivity, as demonstrated by the decreasing amount of subsidy we required, stands out even more when we remember that it happened even while we greatly increased the number of trips and carried a steadily growing stream of passengers and vehicles.

That's performance. Table 1 highlights that in greater detail.

Another indisputable indicator of that strong performance shows up in the sharp drop in the amount of subsidy per traffic unit. Judged by that measurement of productivity, the decrease in our subsidy per unit works out to almost 35 per cent between 1979 and 1989.

In simple terms, that means our costs of carrying traffic went way down. Overall, we did a lot more with a lot less taxpayers' money. We developed into a much more efficent operation, much more productive with the same number of employees. And, we did all of that with less help from the public purse.

No company could take such large strides forward without a significant effort by its employees. The contribution made by the 650 people working in the ferry service goes far beyond the workplace and deep into the communities and the province where they live. Their total wages this year will be $18 million. Benefits amount to another $5 million.

Close to 90 per cent, or 580 of the employees in the P.E.I. service live on the Island. Seventy more jobs are at Cape Tormentine. There are also 14 of us who work in the P.E.I. and Fundy regional office in Charlottetown where we make the operational and administrative decisions for three ferry services.

On top of the economic impact our employees make with their paycheques, the company will also spend another $15 million to buy fuel, goods and services this year for its P.E.I. operation.

THE SECONDARY IMPACT OF FERRY WORKERS' WAGES AND THE COMPANY'S DIRECT PURCHASES SHOULDN'T BE OVERLOOKED EITHER. IF WE USE THE ACCEPTED STATISTICS CANADA MODEL TO ESTIMATE SPINOFF, THERE IS ANOTHER $6 MILLION IN INCOME AND 182 JOBS CREATED BY THE ACTIVITIES OF MARINE ATLANTIC IN PRINCE EDWARD ISLAND.

WHEN YOU ADD THAT ALL UP, THE FERRY SERVICE WILL GENERATE BY ITSELF AT LEAST $40 MILLION FOR THE REGIONAL ECONOMY THIS YEAR, MOST OF THAT FOR P.E.I. AND HUNDREDS OF PEOPLE WILL HAVE JOBS.

THOSE TOTALS DON'T TAKE INTO ACCOUNT THE AMOUNT OF TAXES WHICH GOVERNMENTS STAND TO LOSE IF THE JOBS ARE LOST, A CONSERVATIVE ESTIMATE BEING $6 MILLION A YEAR. NOR DO THEY INCLUDE THE JOBS AND SPINOFF CREATED BY THE PRIVATE COMPANIES WHICH RUN THE RESTAURANT AND GIFT SHOP CONCESSIONS IN OUR TWO TERMINALS. THEY HIRE THEIR OWN PEOPLE AND THEY SPEND MONEY TOO.

WE MUST ALSO ADDRESS THE COST ASSOCIATED WITH LAYING OFF OUR EMPLOYEES. BASED ON A RECENT ANALYSIS THE COMPANY DID OF THE AGE AND SERVICE PROFILES OF P.E.I. EMPLOYEES, CURRENT UNION AGREEMENTS AND COMPANY PRACTICE WOULD REQUIRE US TO PAY OUT OVER $20 MILLION IN SEVERANCE PAY. THAT AMOUNT DOES NOT INCLUDE ANY ADDITIONAL COMPENSATION WHICH MIGHT BE PAID IF THE FERRY SERVICE IS CANCELLED.

THE COMPANY HAS PROMISED ITS EMPLOYEES IN WRITING THAT IF A DECISION IS MADE TO BUILD A FIXED LINK, WITHIN 60 DAYS OF THAT DECISION IT WILL BEGIN DISCUSSIONS WITH THEM ABOUT COMPENSATION.

WE DON'T HAVE THE MEANS IN OUR BUDGET TO COVER EVEN THE AMOUNT OF SEVERANCE PAY, LET ALONE ANY SPECIAL COMPENSATION THAT MIGHT BE ADDED. THAT MONEY WOULD HAVE TO COME FROM SOME OTHER SOURCE.

A DECISION TO ELIMINATE THE FERRY SERVICE WOULD ALSO HAVE A SIGNIFICANT IMPACT ON JOBS AT MARINE ATLANTIC'S CORPORATE HEADQUARTERS AT MONCTON WHERE THERE ARE ANOTHER 160 GOOD-PAYING JOBS.

MOVING ON, I WISH TO DRAW YOUR ATTENTION NOW TO SOME OTHER ISSUES WHICH HAVE SURFACED OVER THE COURSE OF THE FIXED LINK DEBATE. BEING A CROWN CORPORATION AND AN INSTRUMENT OF GOVERNMENT TRANSPORTATION POLICY, WE HAVE REFRAINED FOR THE MOST PART FROM FREELY PARTICIPATING IN THAT DEBATE.

WE ARE NOT HERE TO ASSIGN BLAME, BUT I WANT TO SET THE RECORD STRAIGHT. I'M HERE TO GIVE YOU ACCURATE, VERIFIABLE FIGURES ABOUT OUR FERRY SERVICE, ABOUT WHAT IT DOES AND WHAT IT COSTS.

FROM WHAT WE'VE SEEN AND HEARD SO FAR, YOU AND THE PUBLIC HAVE NOT BEEN GETTING ALL THE FACTS ABOUT MARINE ATLANTIC AND OUR P.E.I. FERRY SERVICE.

A FEW MINUTES IS ALL IT TAKES TO DISCOVER THE WIDE DISCREPANCIES WHICH EXIST BETWEEN MARINE ATLANTIC'S OWN DOCUMENTED FIGURES AND THOSE PREVIOUSLY SUBMITTED BY OTHER SOURCES.

A CRITICAL POINT OF DISAGREEMENT ARISES IN THE AREA OF ESTIMATES DONE ON WHAT IT WOULD SUPPOSEDLY COST TO KEEP OPERATING THE FERRY SERVICE OVER THE NEXT 35 YEARS, AND HOW MUCH OF THAT MONEY WOULD HAVE TO COME FROM THE FEDERAL GOVERNMENT. THERE IS NO QUESTION THAT MARINE ATLANTIC IS THE ONE IN THE BEST POSITION TO KNOW ITS OWN OPERATIONS AND ITS LONG-TERM OPERATIONAL AND FINANCIAL REQUIREMENTS. PORTIONS OF THE STUDIES, AS THEY RELATE TO MARINE ATLANTIC, DO NOT REFLECT REALITY.

I WOULD LIKE TO OFFER YOU A FEW EXAMPLES WHICH ILLUSTRATE THAT POINT.

FOR INSTANCE, ACCORDING TO THE STUDIES, THE FERRY SERVICE WILL REQUIRE A SUBSIDY THAT WILL AVERAGE ABOUT WHAT IS EQUIVALENT TO $35 MILLION A YEAR OVER A 40-YEAR PERIOD. WE **CANNOT** AND **DO NOT** ACCEPT THAT ESTIMATE, WHICH IS TOTALLY AT ODDS WITH WHAT HAS ACTUALLY HAPPENED IN THE PAST, A PATTERN SUPPORTED BY OUR REAL, VERIFIABLE PLANS AND PROJECTIONS.

In point of fact, the level of government subsidy for the P.E.I. ferry service has been steadily decreasing in line with Marine Atlantic's constant improvement in overall financial performance, something I referred to earlier.

We certainly aren't alone when it comes to questioning some of the contents and results of the studies done for Public Works. You may recall that your independent technical expert, Dr. Phil Byer, has a lot of serious concerns about many aspects of some studies. For example, he said a true cost-benefit analysis on the various crossing options should ignore taxes and he questioned the monetary values assigned to time savings. He said the work, as presented, is "biased" towards the effect it has on transportation.

We share his concerns. As Professor Byer correctly points out, if you take out taxes and reduce the amount of time savings, the difference produces a significant impact, in favor of a ferry service.

He went so far as to describe the study as a limited attempt at a cost-benefit analysis. He made it clear that he has difficulty with the idea that the federal government would save money by replacing the ferry service.

Concerns have also been expressed over the fact there hasn't been a contingency plan prepared yet that would be used if something happens to a fixed link. One of the ideas outlined so far is that within a couple of days of a disruption ships would be found and thrown into the breach. I don't know where they could be found. Marine Atlantic has been looking all over the world for ships that we could use now, and we can't find any. There simply aren't idle ferries or other ships waiting to be called into service in P.E.I.

There have also been questions raised about the assumptions made in the studies about induced traffic, that additional traffic that the study says could reach 25 per cent if a bridge is built and 15 per cent if there is a tunnel. The consultants who did the study state: "... there is no comparable situation in the Atlantic Region which would permit a convenient and accurate estimate of induced traffic volume potential resulting from a fixed link between New Brunswick and Prince Edward Island."

They say there's really no way to know for sure what would happen, that their estimates can't be considered accurate figures. However, those figures are used in the cost-benefit analysis. When you insert induced traffic into the calculations on benefits they have the effect of greatly increasing the figures on time saved by a fixed link.

I CALL YOUR ATTENTION NOW TO AN OMISSION THAT ALSO WEIGHTS THE SCALES BY IGNORING CREDITS THAT SHOULD HAVE GONE TO THE FERRY SERVICE. IN THE COST-BENEFIT ANALYSIS THE COSTS WE INCUR TO PROVIDE ONBOARD SERVICES SUCH AS MEALS IS CHARGED AGAINST THE TOTAL COST OF THE FERRY SERVICE, BUT THE REVENUE THEY GENERATE, ABOUT $3 MILLION A YEAR, DIDN'T APPEAR ON THE BENEFIT SIDE OF THE LEDGER. THAT'S NOT AN ACCURATE WAY TO COMPARE COSTS.

ALLOW ME A MOMENT TO SUMMARIZE. OUR P.E.I. FERRY SERVICE EXPENSES FOR 1989 WERE $34.3 MILLION. WE GENERATED $13.7 MILLION IN REVENUE. THAT MEANS THE FEDERAL GOVERNMENT PROVIDED AN OPERATING SUBSIDY OF ONLY $20.6 MILLION LAST YEAR. BETWEEN 1979 AND 1989, IN THAT PERIOD ALONE, OUR OPERATING COSTS, MEASURED IN 1989 DOLLARS, DECREASED BY ALMOST 7 PER CENT. THAT'S DOWN, NOT UP.

OUR PLANS AND PROJECTIONS SHOW QUITE CLEARLY THAT GOVERNMENT SUBSIDY WILL BE IN THE RANGE OF $25.2 MILLION TO $28.1 MILLION PER YEAR, MAXIMUM, OVER THE NEXT 35-YEAR PERIOD, DEPENDING UPON WHETHER NEW VESSELS ARE BUILT IN CANADA OR OFFSHORE. THOSE FIGURES INCLUDE NOT ONLY THE OPERATING SUBSIDY, BUT ALSO THE LEVEL OF SUPPORT OTTAWA WOULD GIVE US FOR CAPITAL PROJECTS SUCH AS NEW SHIPS.

TABLES 2 AND 3 SHOW DETAILS AND PLANS OF HOW WE REALISTICALLY SEE THE FUTURE UNFOLDING. TABLE 4 SHOWS HOW MUCH FEDERAL SUBSIDY COULD BE EXPECTED ON AN ANNUAL BASIS FROM 1990 TO 2025. PROJECTIONS BEYOND THAT POINT BECOME TOO SPECULATIVE TO EVEN CONSIDER WITH ANY REASONABLE DEGREE OF ACCURACY.

THESE ARE VERIFIABLE PROJECTIONS BASED ON THE PRESENT VALUE OF OUR RESPECTIVE REVENUE AND EXPENSES, CAPITAL INCLUDED, STREAMED OUT OVER A 35-YEAR PERIOD AT A 10 PER CENT DISCOUNT RATE, AND CONVERTED INTO WHAT THE AMOUNT WOULD BE ON AN ANNUAL BASIS. THE DISCOUNT RATE WE CHOSE IS THE GENERALLY ACCEPTED ONE RECOMMENDED BY TREASURY BOARD,

THE STUDIES WHICH LOOKED AT OUR CAPITAL AND OPERATING COSTS SIMPLY ASSIGNED A 1 PER CENT PER ANNUM INCREASE IN REAL COST TO PROJECT WHAT FUTURE COSTS WILL BE. IN FACT, THE OPPOSITE IS TRUE. OUR NET OPERATING COSTS, MEASURED IN CONSTANT DOLLARS, ARE STILL DROPPING.

RUNNING A FERRY SERVICE IS NOT A SIMPLE JOB, NOR IS PLANNING FOR NEW SHIPS JUST A MATTER OF PUTTING MONEY IN THE BUDGET AT REGULAR INTERVALS. OUR CAPITAL PLANS ARE NOT CARVED IN STONE. WE WILL NOT BUILD NEW SHIPS BEFORE WE NEED THEM.

AS IMPORTANT AS THOSE FINANCIAL CONSIDERATIONS ARE, WE MUSTN'T FORGET THAT YOU ARE CONCERNED WITH THE ENVIRONMENTAL IMPACT OF A FIXED LINK. MARINE ATLANTIC HAS RECOGNIZED FOR A LONG TIME THAT IT OPERATES IN A SENSITIVE ENVIRONMENT AND CONDUCTS ITS AFFAIRS ACCORDINGLY. THE COMPANY HAS AN ENVIRONMENTAL POLICY WHICH, AMONG OTHER THINGS, ESTABLISHED AN ENVIRONMENTAL AUDIT TEAM. THE TEAM'S ROLE IS TO IDENTIFY AND DETECT AREAS OF ENVIRONMENTAL RISK AND TO ENSURE THAT REGULATIONS, COMPANY POLICIES AND PROCEDURES ARE COMPLIED WITH.

WE HAVE A GREAT NUMBER OF ENVIRONMENTAL PROTECTION MEASURES IN PLACE IN THE P.E.I. SERVICE. THEY INCLUDE COMMUNICATION AND ALARM SYSTEMS WHEN VESSELS ARE BEING REFUELLED, QUARTERLY TESTS ON REFUELLING EQUIPMENT, OVERFLOW TANKS AND PROTECTIVE DIKES AROUND ON-SITE FUEL TANKS. SEWAGE IS HELD ONBOARD IN HOLDING TANKS, THEN PUMPED ASHORE TO A MODERN SEWAGE TREATMENT PLANT JUST LIKE THE ONES SOME ISLAND COMMUNITIES HAVE. ALL GARBAGE IS TAKEN ASHORE AND DISPOSED OF AT APPROVED SITES. OILY BILGE WATER IS SEPARATED AND THE OIL IS USED AS SUPPLEMENTARY HEATING FUEL. OUR ONBOARD PUBLIC ADDRESS SYSTEM ADVISES PASSENGERS ABOUT THE IMPORTANCE OF KEEPING THE ENVIRONMENT CLEAN.

We take every reasonable precaution to protect the environment. We don't take anything for granted when it involves the environment. Our own vigilance is sufficient, but the Coast Guard and Environment Canada are also there as a form of back-up protection. We must comply with very strict regulations and undergo rigorous inspections as another measure of protection.

We are a known factor in the environment of Northumberland Strait and we strive to preserve our enviable record. If some unforeseen event did happen, our well-trained employees will immediately spring into action with containing booms, absorbent materials and dispersants, all kept on site.

We operate in harmony with the environment and the fishermen who earn their living from some of the Strait's richest fishing grounds. By general agreement, the ferries stick to a narrow track between the two shores. We stay in the track and the fishermen don't set their traps in it so they can't be accidentally damaged by the ferries. The arrangement has suited everyone concerned.

OUR LONG, UNDISTURBED RELATIONSHIP WITH THE FISHERMEN AND THE FISHERIES IN NORTHUMBERLAND STRAIT SHOWS A LOT ABOUT OUR OVERALL RELATIONSHIP TO THE ENVIRONMENT. SCALLOP FISHERMEN DRAG RIGHT ACROSS THE FERRY TRACK AND LOBSTER FISHERMEN SET THEIR TRAPS JUST OUTSIDE THE TRACK. WE'VE HAD THREE-QUARTERS OF A CENTURY OF CO-EXISTENCE AMONG FERRIES, FISHERMEN AND THE MARINE ENVIRONMENT.

WE ARE JUST AS CONSCIENTIOUS ABOUT THE WAY WE HANDLE THE DANGEROUS COMMODITIES WE CARRY ON OUR FERRIES, THE ONLY FERRY SYSTEM IN THE PROVINCE THAT WILL TRANSPORT THE CHEMICALS, PETROLEUM PRODUCTS AND OTHER HAZARDOUS GOODS THAT MUST COME TO THE PROVINCE. TRUCKS CARRYING THOSE PRODUCTS ARE CONSIGNED TO SPECIAL NIGHT-TIME CROSSINGS WHERE NO OTHER PASSENGERS ARE ONBOARD. THEY NEED TELEPHONE RESERVATIONS TO GET ON THOSE CROSSINGS AND DOCUMENTS THAT SHOW EXACTLY WHAT AND HOW MUCH THEY ARE CARRYING.

MARINE ATLANTIC DESIGNED AND OPERATES A COMPUTERIZED SYSTEM WHICH IS JUST ABOUT THE BEST ANYWHERE. IT IS BACKED UP BY THOROUGH, REGULAR TRAINING AND CAREFUL ATTENTION BY EVERYONE INVOLVED, SUPPORTED BY SPECIAL EQUIPMENT TO HANDLE ANYTHING. EVEN BEFORE A TRUCK ARRIVES AT THE TERMINAL, THE COMPUTER SYSTEM PROVIDES A PRINTOUT FOR THE SHIP'S CAPTAIN ON THE TYPE OF CARGO THAT'S COMING. IT ALSO GIVES INSTRUCTIONS ON WHAT TO DO AND WHAT NOT TO DO, IF THERE EVER SHOULD BE AN ACCIDENT.

ONCE ONBOARD THE SHIP, TRUCKS ARE SEGREGATED ACCORDING TO WHAT PRODUCTS THEY CONTAIN IN ORDER TO MINIMIZE THE RISK OF DANGEROUS CHEMICALS MIXING SHOULD THERE BE A SPILL OR LEAK ONBOARD. CREWS ARE WELL TRAINED TO DETECT POTENTIAL PROBLEMS AND TO COUNTERACT ANY KIND OF INCIDENT THAT MAY OCCUR. IF A CHEMICAL EVER SPILLS FROM A TRUCK, THE SHIP'S SCUPPERS WILL BE IMMEDIATELY CLOSED, SEALING THE SHIP SO NOTHING CAN ESCAPE INTO THE WATER.

THE SYSTEM HAS SERVED US WELL. IN FACT, IT'S SO GOOD THAT IT HAS BECOME THE STANDARD FOR THE ENTIRE MARINE INDUSTRY IN CANADA. THE COAST GUARD ITSELF USES OUR STANDARDS TO MONITOR COMPLIANCE IN THE REST OF THE INDUSTRY.

AN ADDED BONUS TO THAT WHOLE SYSTEM IS THAT ENVIRONMENTAL OR EMERGENCY AGENCIES WHO MAY WANT TO IDENTIFY A CARGO, IN THE CASE OF A HIGHWAY ACCIDENT, FOR INSTANCE, OR JUST CHECK ON WHAT HAS BEEN COMING INTO THE PROVINCE, CAN CALL US TO FIND OUT EXACTLY WHO HAS BEEN TRUCKING WHAT DANGEROUS GOODS, WHEN, AND HOW MUCH.

IN SUMMARY, MR. CHAIRMAN AND PANEL MEMBERS, I HOPE THAT I'VE HELPED YOU GAIN A BROADER, MORE ACCURATE KNOWLEDGE AND UNDERSTANDING OF WHAT WE HAVE BEEN DOING AT MARINE ATLANTIC AND HOW WE HAVE BEEN DOING OUR JOB BETTER, MORE OFTEN AND AT LESS COST.

WE'VE SHOWN THAT THE AMOUNT OF FEDERAL SUBSIDY REQUIRED BY THE P.E.I. FERRY SERVICE IN THE FUTURE WILL BE SUBSTANTIALLY LESS THAN THE $35 MILLION PER YEAR ESTIMATED IN THE ECONOMIC FEASIBILITY ANALYSIS.

AT THE MOMENT, UNCERTAINTY SURROUNDS THE FUTURE OF THE P.E.I. FERRY SERVICE. NEVERTHELESS, OUR SHIPS AND FIVE GENERATIONS WHO HAVE WORKED ON THEM HAVE ALWAYS RISEN TO MEET NEW CHALLENGES, NEW OPPORTUNITIES. THEY SAILED SIX MILLION MILES TOGETHER SO FAR AND THEY CAN DO A LOT MORE, IF CALLED UPON. WE WILL ALL FACE TOGETHER WHATEVER IS TO COME.

REGARDLESS OF WHERE THAT COURSE STEERS US, WE WILL NOT SWERVE FROM OUR COMMITMENT TO DO THE VERY BEST JOB WE CAN. WE HAVE PLANS THAT WOULD MAKE IT POSSIBLE TO DO EVEN BETTER, TO GIVE ISLANDERS AN IMPROVED FERRY SERVICE THAT EVERYONE WOULD ALL BE PROUD OF.

WE HAVE THE POTENTIAL. THE ANSWER LIES IN THE FUTURE.

Table 1

Borden to Cape Tormentine
Financial Highlights

$ Millions	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Commercial Revenue											
Current $	5.17	5.57	5.84	6.47	7.37	7.94	9.06	10.24	11.43	12.38	13.74
Constant $1989	9.67	9.46	8.82	8.81	9.49	9.80	10.76	11.68	12.49	13.00	13.74
Operating Expenses											
Current $	19.63	20.34	23.56	24.86	27.40	30.34	31.03	31.03	32.60	33.99	34.32
Constant $1989	36.72	34.55	35.58	33.88	35.30	37.46	36.84	35.39	35.62	35.69	34.32
Operating Subsidy *											
Current $	15.27	15.45	17.30	18.46	19.82	23.20	21.56	21.29	21.83	22.30	21.03
Constant $1989	28.56	26.24	26.12	25.15	25.53	28.64	25.60	24.28	23.85	23.41	21.03
Dollars											
Subsidy per A.E.U. carried											
Current $	10.42	11.27	12.84	14.88	14.44	16.49	14.83	15.43	14.81	14.34	12.70
Constant $1989	19.50	19.14	19.39	20.28	18.61	20.36	17.61	17.60	16.18	15.05	12.70

- Decrease in Operating Subsidy 1979-1989	26.4%
- Increase in Commercial Revenue 1979-1989	42.2%
Annual Compound Growth Rate Commercial Revenue 1979-1989	3.6%
- Decrease in Operating Expenses 1979-1989	6.6%
- Decrease in Subsidy per A.E.U. Carried 1979 - 1989	34.9%

*N.B. operating expenses and contract revenue numbers have been restated to to agree with current contract arrangements

Table 2

LONG TERM PROJECTION OF OPERATING EXPENDITURES AND REVENUES

$1989 MILLIONS

YEAR	OPERATING EXPENSES	OPERATING REVENUES	OPERATING SUBSIDY	% REV TO OPER EXP
1990	36.2	13.7	21.0	38%
1991	36.2	14.2	22.0	39%
1992	36.2	14.7	21.5	41%
1993	37.2	15.2	22.0	41%
1994	37.2	15.7	21.5	42%
1995	37.2	16.3	20.9	44%
1996	37.2	16.8	20.4	45%
1997	37.2	17.4	19.8	47%
1998	38.2	18.0	20.2	47%
1999	38.2	18.7	19.5	49%
2000	38.2	19.3	18.9	51%
2001	38.2	20.0	18.2	52%
2002	39.0	20.7	18.3	53%
2003	39.0	21.4	17.6	55%
2004	39.0	22.2	16.8	57%
2005	39.0	23.0	16.0	59%
2006	39.0	23.2	15.8	59%
2007	39.0	23.4	15.6	60%
2008	39.1	23.4	15.7	60%
2009	39.1	23.4	15.7	60%
2010	39.1	23.4	15.7	60%
2011	39.1	23.4	15.7	60%
2012	39.1	23.4	15.7	60%
2013	39.1	23.4	15.7	60%
2014	39.1	23.4	15.7	60%
2015	39.1	23.4	15.7	60%
2016	39.1	23.4	15.7	60%
2017	39.1	23.4	15.7	60%
2018	39.1	23.4	15.7	60%
2019	39.1	23.4	15.7	60%
2020	39.1	23.4	15.7	60%
2021	39.1	23.4	15.7	60%
2022	39.1	23.4	15.7	60%
2023	39.1	23.4	15.7	60%
2024	39.1	23.4	15.7	60%
2025	39.1	23.4	15.7	60%

Table 3

VESSEL REPLACEMENT AND
LONG TERM CAPITAL PLANS
$ 1989 MILLIONS

	CAPITAL EXPENSES				CAPITAL EXPENSES		
YEAR	CANADIAN	WORLD	DESCRIPTION	YEAR	CANADIAN	WORLD	DESCRIPTION
1990	0.8	0.8		2008			
1991	1.3	1.3		2009	1.0	1.0	
1992	0.9	0.9		2010			
1993	1.4	1.4		2011			
1994	1.0		Design Abegweit II	2012	1.0	1.0	
1995	4.0		Build Abegweit II	2013			
1996	15.0		Build Abegweit II	2014	5.0	5.0	Life Ext Abegweit I
1997	75.0	50.0	Build Abegweit II	2015	1.0	1.0	
1998	1.0	1.0		2016			
1999				2017	45.0	20.0	Replace Hol. Island
2000	1.0	1.0		2018	45.0	20.0	Replace Vacationland
2001	3.0	3.0	Life Ext - Hol. Island	2019			
2002	3.0	3.0	Life Ext - Vacationland	2020			
2003	1.0	1.0		2021	1.0	1.0	
2004				2022			
2005				2023			
2006	1.0	1.0		2024	1.0	1.0	
2007				2025	95.0	50.0	Replace Abegweit I

TABLE 4

Annualized Operating Costs, Revenues and Capital Costs, 1990-2025

$ 1989 Millions

1	Annualized Operating Costs	41.547
2	Annualized Operating Revenues	19.909
3	Annualized Capital Costs (Cdn Build)	6.435
4	Annualized Capital Costs (World Build)	3.658

Annual Operating and Capital Subsidy Requirements

a.	With Canadian Capital Prices (1+3-2)	28.073
b.	With World Capital Prices (1+4-2)	25.297

PRESENTATION TO THE ENVIRONMENTAL ASSESSMENT REVIEW PANEL

at Charlottetown, P.E.I. March 27,1990

by Thomas W. Klewin, Crapaud, P.E.I.
as a concerned private citizen

I would repeat a fundamental question I raised at my presentation at Souris on June 28,1989; namely, "Can the environmental reports currently done by private, for-profit companies, hired by Public Works Canada to support the development of a fixed link by a private consortium, be impartial, unbiased and conservative in their opinions when thesurvival of these private environmental companies and the individuals working for them depends on continuing contracts by developers and governments desiring to build mega projects?"

In this connection I would ask why a world class oceaneographic insitute located in Nova Scotia was not utilized to assure the fishermen that the best scientific evidence was available to Public Works Canada? I would also question why experts in rural sociology and economics, available on Prince Edward Island, were not consulted by Public Works Canada to answer the questions raised by this Panel, or why Smith Green did not consult them? My question is: "Were Public Works Canada and Smith Green concerned that these experts might provide an unbiased appraisal of the social and economic problems arising from the construction ofthe fixed link and the loss of some 630 well-paying jobs in primarily rural areas of Prince Edward Island? Was it possible that these experts might find the solutions proposed by Public Works Canada and Smith Green not viable or not addressing the problems facing rural P.E.I. with the construction of a fixed link and the loss of these well-paying jobs?"

I would first address my concerns of what a fixed link might do to the already fragile economy of Kings County. A reduction of some 50%-55% of passenger traffic with the Northumberland

Ferry System will mean a reduced number of ferry trips and a consequent reduction in a ferry subsidy. This will lead to a further decline in the use of the service and it could face an eventual demise, in spite of what the consultants and Public Works Canada assert. Public Works did acknowledge in a meeting in Pictou County reduced ferry traffic will mean a reduced subsidy. And while Public Works Canada has stated there is no possibility of closing the Northumberland Ferry Service, Public Works is not in a position to make that decision or provide that kind of guarantee. There is no guarantee that sometime after a fixed link is constructed, a federal finance minister may decide to do what has been done to VIA--cancel it in the name of deficit reduction. A recent P.E.I. study dealing with highway impact raises questions about the long-range future of the Wood Islands Ferry Service. The contract for a new ferry has been delayed for four years while the fixed link issue remains uncertain, raising the question, "Will the new new ferry be canceled if the link proceeds?"

Smith Green concluded a reduction in ferry traffic would not affect tourism in Kings County. However, it is evident they did not consult with tourist operators along the highway leading from Wood Island to Charlottetown and Cavendish. Most of the tourist operators are handicraft individuals depending on a large flow of tourists stopping along the route from and to theferry to purchase their products. In addition, service stations, convenience stores, grocery stores, fast food outlets and fresh produce stands would suffer from the downturn in traffic. In 1988 Thom MacMillan, the former president of the Tourism Industry of P.E.I., stated: "If traffic drops in this end of the Island to the extent that the studies predict, this will become a no-growth area, since most of the businesses in this area rely on the ferry traffic to get them through the lean days in the winter." He went on to add that the drop in traffic would put his restaurant out of business and his entire tourist business at Wood Island would put 50 people out of work.

Public Works Canada has proposed no compensation or remedial action for the Wood Islands Ferry Service employees who will lose their jobs if there is a 55% reduction in passenger ferry traffic or if the ferry service is eventually canceled. A total of 300 people are currently employed by the ferry systemand Captain Aspin predicts a substantial loss in the number of ferry workers with the 55% decline in passenger traffic. He states the ferry system currently puts some $10,600, 000 in wages and expenditures in supplies, fuel and maintenance into the Kings County economy. A reduction of 55% in passengers would mean a loss of some $5,300,00 annually for Kings county while a closure of the ferry service would cost Kings County $1,000,000 more than the trucking Association estimates the trucking industry would save with a bridge.

Pictou County would also suffer a severe economic loss with a reduction in the ferry service or its total elimination. Again, there is no mention of compensation, restructuring of the work force or compensation to tourist operators who would experience losses because of the construction of a fixed link. Are the people of Kings and Pictou counties expendable and has the loss of their wages, income and tourist assets been considered in an evaluation of the positive and negative economic impact of a fixed link on P.E.I. and Pictou County?

The question also remains unanswered concerning the number of cottages to be constructed on the South Shore if a bridge is built. Why hasthe projection by the DPA Group been downgraded almost 300% without any documentation for that down grading? Most residents on the South Shore believe the ready access of a bridge will provide the possibility of 3,000 cottages being constructed on the South Shore. Why, in addition, hasn't an assessment been made of agricultural land which has been put into cottage lots on the South Shore within the past two years, and why hasn't mention been made that lots near the proposed exit of the bridge have quadrupled in price within the past two-three years?

Public Works Canada isin error to state P.E.I. law can control the amount of land owned by non-Islanders. The law only applies to the purchase of 5 or more acres and most cottage lots are less than 5 acres. These kinds of sales willdeprive Islanders of access to their own shore line in a similar pattern as that of Maine where less than 1% of shore line is accessible to the citizens of Maine.

No provisions have been made for the protection of wetlands, marshes, tidewaters and shorelines if the DPA Group projections are correct. No studies have been made in that area and Public Works Canada's answer is to reduce the number of cottages projected to be built by some 300%. That is not a study noran answer to a problem.

There havebeen no studies done or evidence produced to indicate that business and industry will grow to any extent with the advent of a bridge. The only reputable study states a fixed link will have little or no effect either negatively or positively on the manufacturing sector of the P.E.I. economy. Common sense would dictate that where speedy access to markets is essential industry or business will locate nearer to the markets or use commercial air service for speedy delivery.

March 21st marked the second national observance of Rural Revitalization Day and Catherine Callbeck, our Malpeque MP, urged the Federal Government to strengthen the services needed by rural Canadians to maintain their communities. She also expressed concern that the federal government's policies are eroding the nature of rural life on P.E.I. And there can be no more devastating policy on rural life and rural communities for much of the Island than the destruction of the ferry service . I have already made note of what a fixed link will do to the rural communities and peoples of Kings County. I would now point to what will happen to more than 20 rural communities in Eastern Prince and Western Queens Counties. The solution by Public Works is to have people "outmigrate" and mimic the terrible tragedy inflicted on Newfoundland's outport communities where people were forced to move to larger population centres. The only difference on P.E.I. is that most ferry workers will have to leave the Island to find employment paying somewhat comparable wages to what they are currently earning with Marine Atlantic.

Exhibit One accompanying this brief outlines the amounts various rural areas will lose in income. For many it will be the difference between their survival as a viable community and the disintegration of their community and rural way of life. Exhibit Two indicates which businesses would suffer if the ferry workers in these cluster communities lose their jobs, while Exhibit Five denotes which community infrastructures, the glue which holds rural communities together, will be adversely affected by the loss of ferry workers' jobs, income, and perhaps the necessity for the workers to follow one of Public Works Canada's suggestions and solutions--to "out-migrate" and leave these small rural communities without an adequate population or income base to survive. The loss of these ferry workers' jobs will have a more devasting effect on these 20 small rural communities than while the closure of CFB Summerside on the city of Summerside. Yet while the closure of the Air Base has raised sympathy for Summerside across Canada, there doesn't seem to be the same concern for the future of these rural communities, especially by the City of Summerside and its business community who seem to believe what is not acceptable for Summerside, should be for these rural communities.

There has been no indication of any program designed to assist these small communities adjust to the loss of income, perhaps families and their contribution to the businesses of their community as well as the religious-social-recreational activities which provide the vitality to rural life. The three core areas listed in Exhibit One will be the ones most adversely affected, yet no effort hasbeen made to ascertain what these core areas require to survive as viable communities. NO person from Public Works Canada nor their consultants has dialogued with members of these communities to ascertain what, if anything, can be done to keep these communities viable and functioning. Smith Green assert these communities have the organizations in place to handle the problems which would arise from the lossof jobs by the ferry workers in their respective communities. However, as a longtime resident of one of these rural core areas, I know of no such organization or program.

Charitable organizations such as the United Way and others as well as churches depend on gifts by those families with enough of an income to make a contribution. Many of the volunteer groups and organizations depend on these ferry workers for leadership and participation. Even such a vital organization as the volunteer fire departments would be affected. I would call your special attention to the Borden core area which will lose $4,500,000 in income. This will severely impact on the survival for many community organizations and groups which depend upon local residents for financial and physical participation for success of their programs and organizations. Public Works Canada has NOT EVEN CONSIDERED the impact of the ferry closure on the infrastructure of the communities I havelisted in Exhibit One.

The village of Borden will lose most of its tax base with the loss of Marine Atlantic facilities and the closure of the Liquor store-tourist information Centre. Does Public Works Canada have a solution as having the private builder provide the equivalent sums lost in Borden's tax base for the next 35 years? If not, how can Public Works Canada justify the destruction of a community without providing/income not only for the workers but also the community and its organizations, groups, activities and businesses for the foreseeable future?

There has been no meaningful, rational, viable or workable solution to the long-term requirement of replacement for the loss of the ferry workers' income. Solutions suggested by the consultants are neither viable nor realistic. CEIC, as Donald Deacon in his brief pointed out so clearly, cannot begin to handle the 630 ferry workers plus the 180 persons supplying goods and services to the ferry system. Outmigration,another suggestion by the consultants, will destroy communities and create great social, emotional and psychological trauma for those who have built their supplies and services will add $280,000,000 for Marine Atlantic over that 35 year period while the same source will add another $105,000,000 to the Wood Island Ferry service. Combined, this amounts to more than $1,509,000,000 in constant 1989 dollars. The projected savings by the trucking industry and the additional dollars generated by increased tourism over that same 35 year period will NOT begin to reach even half the total lost by the closure of one ferry service and the reduction in the other. As well Summerside is projected to lose more than $3,900,000 in wages from ferry workers residing in the greater Summerside area as well as several million more from goods and services provided the ferry service. Over a 35 year period Summerise will lose $136,500,00 in 1989 constant dollars from lost ferry workers wages. No compensation has been planned for Summerside according to Public Works and the question is, "Why not?"

Both the Federal and Provincial Governments will lose huge sums in taxes which could be placed on a billion and a half dollars paid in wages and services. NO one has factored this government loss into the economic impact of replacing the ferry service with a bridge.

If the fishermen's livelihood is adversely affected as many fishermen andexperts believe, the impact on these small rural communities would be even greater since many of the fishermen live in the same rural communities as the ferry workers. Yet Pubic Works Canada has not come up with a viable, reasonable answer to loss of income to the fishermen nor on what that would mean to the rural communities.

I would ask the Panel to consider the small rural communities in Eastern Prince, Western Queens and Southern Kings counties and whether they are to be made expendable for the gain in tourism on the North Shore and Charlottetown and for the convenience of those who do not wish to ride on a ferry. And I would ask once again why the experts in rural sociology and economics on P.E.I. were not consulted by Public Works Canada. Thank you for your kind attention and consideration to these concerns of mine for the rural communities of Prince Edward Island.

EXHIBIT ONE:

DEMOGRAPHICS OF RURAL AREAS IN EASTERN PRINCE COUNTY AND WESTERN QUEENS COUNTY PRIMARILY AFFECTED BY THE LOSS OF FERRY WORKERS" JOBS:

1. BORDEN-Carlton-CARLTON SIDING-ALBANY AREA:
   Number of Workers: 145
   Loss of Income: $4,350,000
2. CRAPAUD-VICTORIA-TRYON-HAMPTON-DESABLE-BONSHAW AREA:
   Number of Workers: 43
   Loss of Income: $1,290,000
3. BEDEQUE-FREETOWN-MIDDLETON-KINKORA AREA:
   Number of Workers: 64
   Loss of Income: $1,920,000
4. WELLINGTON AREA:
   Number of Workers: 26
   Loss of Income: $780,000
5. KENSINGTON AREA:
   Number of Workers: 22
   Loss of Income: $660,000
6. RICHMOND-TYNE VALLEY-ELLERSLIE-O'LEARY AREA
   Number of Workers: 21
   Loss of Income: $630,000

Number of Ferry Workers in rural areas in Prince and Western Queens County: 321 x 4 per family equals 1284 persons affected by loss of ferry service.
Loss of Income to these rural areas: $9,630,000

IMPACT ON THE SUMMERSIDE-WILMOT-St. ELEANOR-MISCOUCHE AREA

Number of Ferry Workers: 130 x 4 per family equals 520 persons affected by loss of ferry service
Loss of Income: $3,900,000

Exhibit Two

BUSINESSES WHICH COULD SUFFER FROM THE SPINOFF EFFECT OF THE LOSS OF FERRY WORKERS' INCOME IF A FIXED LINK IS BUILT: RURAL AREAS

BORDEN: Loss of $4,350,000 in ferry workers' income

1. Pharmacy
2. Physician's Office
3. General Store
4. Bar-Lounge-Restaurant
5. Service station and convenience store

CARLTON:

1. 2 service stations
2. A Gas bar and convenience store
3. a campground and restaurant
4. a motel

TRYON:

1 SEASONAL RESTAURANT

1 general store

CRAPAUD:

1. Pharmacy
2. General Store
3. Service Station
4. Service station and Convenience store
5. Physician
6. Dentist
7. A Hair Salon
8. A Video Shop

HAMPTON

1. Gas bar and convenience store
2. A Service Station

DESABLE:

a year=round restaurant

BONSHAW

a service station

a physician

VICTORIA:
1 lobster pound (seasonal May-October)
1 restaurant and lobster pound (seasonal)

BEDEQUE:

Hardware store
Furniture and Appliance Store
A Convenience store
A hair Styling Salon
a small grocery store-take out with a gas bar
MIDDLETON:
a service station and Convenience store
a service station
FREETOWN:
a service station
KINKORA:
a service station
a restaurant
a take-out--coffee shop

Exhibit three

NUMBER OF BUSINESSES AFFECTED BY CHANGE OF ACCESS TO A FIXED LINK FROM THE CURRENT ACCESS TO THE FERRY SERVICE:

BORDEN:

1 Service station-Convenience store
1 Pharmacy
1 General store
1 Bar-Lounge-Restaurant

CARLTON:

1 Camp Ground and restaurant
2 Service Stations
1 Gas bar and Convenience store
1 MOtel

The only business with the money to relocate is the Irving Service Station and Convenience store which already owns land to build a similar business by the off-ramp of the fixed link. However, Borden will no longer have the ability to have it handy within the town limits.

Exhibit Four

THE FOLLOWING MOTELS ARE LOCATED ON THE TRANS-CANADA BETWEEN BORDEN AND NEW HAVEN, SOME 37 KILOMETRES IN DISTANCE:

CARLTON: 1 motel
CRAPAUD: 2 Motels
HAMPTON: 1 motel
DESABLE: 1 Motel
NEW HAVEN: 1 motel

During the past decade the tourist numbers haveincreased by some 25%-30%, yet all these motels have experienced difficulty in attracting tourists and all with the exception of the Red Rooster Motel associated with the Red Rooster restaurant have been up for sale because of insufficient returns during the short tourist season. To imply that the loss of ferry workers jobs can be compensated by the formation of new businesses fliesin the face ofthe experience of these motel owners.

TOURIST ATTRACTIONS FROM BORDEN TO NEW HAVEN:

1 souveneir and gift shop-Carlton-closed for lack of business
1 car museum-Bonshaw-mimimum use by tourists.
1 bumper car and boat bumper amusement center-Bonshaw-Churchill area. Open week ends until 3rd week in June and again open weekends only after Labour Day.

1 3 hole golf course Bonsaw-Churchhill area open 7 days only during 10-12 weeks span in summer

Fairy Land, New Haven--a thriving children's amusement park open weekends before June 20 and forthe month of September. Open 7 days for a 12 week period.

No new tourist attraction has been developed on the South Shore in the past decade in spite of the growth in tourism. There is no indication an additional 120,000 tourists brought by a fixed link will provide incentive to open new businesses along the South Shore and compensate for the loss of ferry workers' jobs.

EXHIBIT FIVE:

COMMUNITY INFRASTRUCTURES WHICH WOULD BE AFFECTED BY LOSS OF FERRY WORKERS'S INCOME AND POTENTIAL LOSS OF FERRY WORKERS' FAMILIES IF THEY WOULD HAVE TO RELOCATE TO PROVIDE AN INCOME FOR THEIR FAMILIES:

1. CRAPAUD-VICTORIA-TRYON-HAMPTON-DESABLE-BONSHAW AREA:
    - 10 churches
    - 1 indoor ice rink
    - 1 curling club and rink
    - 1 volunteer fire department
    - 2 community centres
    - various organizations such as Women's Institutes, Scouts, Girl Guides, Community School, etc.
2. BORDEN-CARLTON-CARLTON SIDING-Cape Traverse-ALBANY AREA
    - 4 CHURCHES
    - 1 fraternal lodge
    - 1 ice-recreational arena
    - 1 Royal Canadian Legion facility
    - 1 Civic Centre
    - 1 service club community hall
    - 1 volunteer fire department
    - various organizations such as Women's institutes, Scouts, Girl guides, Community School, etc.
3. BEDEQUE-FREETOWN-MIDDLETON-KINKORA AREA:
    - 6 churches
    - 1 recreational-ice arena
    - 1 community centre
    - 1 community hall
    - 1 Volunteer Fire Department
    - 1 Civic centre
    - various organizations such as Women's Institutes, Scouts, Girl Guides, Community School, etc.

Atlantic Provinces Transportation Commission

P. O. Box 577
Moncton
New Brunswick
E1C 8L9

Tel. (506) 857-2820
Fax. (506) 857-2835

AN ANALYSIS OF THE POTENTIAL COST SAVINGS TO PRIVATE AND COMMERCIAL MOTOR CARRIERS WITH A FIXED CROSSING TO PRINCE EDWARD ISLAND

PREPARED BY

THE ATLANTIC PROVINCES
TRANSPORTATION COMMISSION

FEBRUARY, 1990

Sponsored by the governments of Nova Scotia, New Brunswick, Prince Edward Island, Newfoundland and Labrador. Affiliated with the Atlantic Provinces Chamber of Commerce.
Offices: Suite 210, Commerce House, 236 St. George Street, Moncton, New Brunswick

At the September 23, 1986, Board of Directors' meeting of the Atlantic Provinces Transportation Commission (APTC), staff was authorized to prepare an evaluation of the cost savings to shippers and receivers by a fixed crossing between New Brunswick and Prince Edward Island. The cost saving analysis would be based solely on the saving in time to private and commercial motor carriers resulting from the fixed crossing versus the present ferry system. This paper is an update to the previous analysis done in 1987 and 1989.

Please note that a change has been made in the assumption concerning Northumberland Ferries traffic. This paper assumes that 50% of Northumberland Ferries commercial traffic would divert to the fixed crossing, whereas previous papers assumed that 100% of Northumberland Ferries commercial traffic would utilize the fixed crossing. However, the reduced crossing time via a fixed link is also assumed to be offset by the longer highway distance involved. As a result, Northumberland Ferries commercial traffic is not included in the estimated time cost savings.

A fixed crossing, would result in an approximate twelve minute crossing time between New Brunswick and Prince Edward Island. The current Marine Atlantic ferry crossing is 45 to 60 minutes from terminal to terminal and the crossing by Northumberland Ferries is one hour and 15 minutes. The actual time involved by using the ferry system varies depending on the time of year and traffic conditions.

Discussions with the Atlantic Provinces Trucking Association and a major common carrier operating between New Brunswick and Prince Edward Island indicates that the additional travel time for queuing and waiting between the mainland and the Island ranges from a minimum of one hour to a maximum of 6 hours.

An analysis conducted in 1982 by the APTC involving the movement of potatoes indicated that the average time for the ferry crossing between Cape Tormentine and Borden was 2 hours per crossing. This was verified by similar analyses made by the Department of Transportation for the Province of Prince Edward Island. Subtracting the 12 minute drive via the fixed crossing the estimated time saving is one hour and 48 minutes or 1.8 hours.

In order to determine the cost per hour of a tractor-trailer plus driver, the APTC did some sampling based on previous private trucking studies and determined that a tractor-trailer unit cost ranges from $25 to $30 per hour. The major motor carrier contacted estimated the cost as ranging from $35 to $40 per hour. A straight truck was estimated as costing $25 per hour.

Ferry crossing statistics for the calendar year 1989 are as follows for commercial traffic:

Marine Atlantic
(12 Month Period Ending December 31, 1989)

Straight Trucks	24,307 Units
Tractors & Trailers	128,141 Units
Rail Tonnage	25,599 Tons

Northumberland Ferries Ltd.
(April 24 to December 6, 1989)

Commercial Vehicles	21,228 Units

Some assumptions have been made in order to determine the cost savings from a fixed crossing:

1. Rail tonnage would move by tractor-trailer at 25 tons per unit. Some rail traffic may not be converted to highway tractor-trailer and may move via alternative transportation modes such as direct vessel movements, however for the purposes of this analysis a strict conversion to highway has been assumed.

2. Fifty percent of Northumberland Ferry commercial traffic would be diverted to the fixed crossing. Northumberland Ferry traffic moving via the fixed crossing would require additional highway travel costs to Cape Tormentine, however it is assumed that this will be offset by the shorter transit time via the crossing.

The following are the calculations of the cost savings:

Minimum Savings ($25/Hour Straight Trucks and Tractor-Trailers)

1. Straight Trucks
   24,307 units
   @ $25 per hour X 1.8 hours
   = $1,093,815

2. Tractor-Trailers
   128,141 units
   @ $25 per hour X 1.8 hours
   = $5,766,345

3. Rail Conversion to Tractor-Trailers
   25,600 tons divided by 25 tons = 1,024 units
   @ $25 per hour X 1.8 hours
   = $46,080

   Total Cost Savings (Total 1, 2 & 3) = $6,906,240

Minimum Savings $25/Hour Straight Trucks and $35/Hour Tractor-Trailers

1. Straight Trucks
   24,307 units
   @ $25 per hour X 1.8 hours
   = $1,093,815

2. Tractor Trailers
   128,141 units
   @ $35 per hour X 1.8 hours
   = $8,072,883

3. Rail Conversion to Tractor-Trailers
   25,600 tons divided by 25 tons = 1,024 units
   @ $35 per hour X 1.8 hours
   = $64,512

   Total Cost Savings (Total 1, 2 & 3) = $9,231,210

The above analysis appears to indicate that given a time savings of 1.8 hours, the cost savings to commercial traffic will range from $6.9 million to $9.2 million per year. It is possible that the time savings could average out to be greater than 1.8 hours considering such things as the varying schedules and summer tourist traffic.

An additional benefit would result from the greater utilization of equipment for those motor carriers serving Prince Edward Island and the mainland. As an example, at the present time a round trip between Moncton, NB, and Charlottetown, PE, requires an average of 8 hours via the ferry service. The round trip between Moncton, NB, and Saint John, NB, a similar distance, takes an average of 4 hours, or one-half the time required for the Moncton to Charlottetown run.

Dated in Moncton, NB
February 21, 1990

The Canadian Manufacturers' Association

Helping Manufacturers Grow

THE NORTHUMBERLAND STRAIT FIXED CROSSING

A Submission of the

PRINCE EDWARD ISLAND DIVISION

OF

THE CANADIAN MANUFACTURERS' ASSOCIATION

Charlottetown, P.E.I.
March 28, 1990

Prince Edward Island Branch
49 Cottonwood Ave.,
Charlottetown, P.E.I. C1E 1B9
Telephone (902) 894-5359

Mr. Chairman and Members of The Panel:

The Prince Edward Island Division of The Canadian Manufacturers' Association would like to thank you for this opportunity to express the views of the Members of the Division concerning construction of the proposed Fixed Link Crossing of the Northumberland Strait.

The Prince Edward Island Division of The Canadian Manufacturers' Association represents the manufacturing and processing sectors of the Provincial economy and is therefore very concerned about the disposition of this project.

Since the beginning of the current debate on a fixed crossing project some three years ago, the Members of CMA Prince Edward Island have been publicly on record as supporters of the Project. This support was and remains conditional on there being very limited impact on the environment of Prince Edward Island in the long-term.

Our Members agree with the process that has taken place to date...the studies that have been completed by experts in the various disciplines...the criteria set out by both Public Works Canada and the Province of Prince Edward Island in the call for proposals...the evaluation by independent working groups of the various proposals received...and this full environmental

...2

assessment review by yourselves and your own experts and consultants. It is our opinion that no major project has had the scrutiny and study that this project has undergone in the past three years. We hope that you will carefully review all of the evidence you have received and will receive during the course of these public hearings and that your final report will recommend the project proceed to final pricing and ultimate construction.

ECONOMIC IMPACTS

The proposed fixed link between Prince Edward Island and New Brunswick will have a major impact on the economies of all three provinces in the Region and will certainly impact all sectors of Prince Edward Island's economy.

In the past two years, the Atlantic Region has been hit hard by economic problems that must be considered drastic by any standards. This has caused a great deal of concern and confusion in the minds of the population of the Region. Some of these economic factors include Federal budgetary moves such as the closing of Canadian Forces Bases in Summerside, Moncton and locations in Nova Scotia, cuts in transfer payments to the provinces, changes in the Unemployment Insurance System, the devastation of the Atlantic Fishery which has led to fish processing plant closures, cuts in Via Rail, high interest rates, high levels of unemployment and higher taxes. These factors, along with others, have had a major impact on provinces and a Region that struggle to survive even in the best of times.

...3

Tough times have visited our Province in the past and the people have always rebounded, and we will again. Prince Edward Island has a lot going for it and our own Government has slowly begun to recognize that we have world class products and capabilities. We must take full advantage of every opportunity to maximize our potential in the world market.

Last June, The Canadian Manufacturers' Association released a major policy paper "The Aggressive Economy:. Daring to Compete". In this paper, CMA pointed out that, in the face of today's global economy and market, Canadian business must become more aggressive in all areas. Business, workers, governments, educators, everyone must pull together to create an economic climate that will lead to a measure of prosperity for each and every one of us. That's exactly what we must do in Prince Edward Island. The proposed fixed link is one opportunity for increased economic development in our Province.

Ladies and Gentlemen of the Panel, should you recommend this project proceed, the immediate benefits to Prince Edward Island will be major job creation. Workers are going to be required for the construction period and beyond. Those who oppose this project will say jobs will be lost and the jobs that are created will go to people from other provinces and indeed from other countries. We, the Members of the Prince Edward Island Division of CMA, say this is not so. In the original call for proposals, both Public Works Canada and the Province of Prince Edward Island

...4

insisted that benefits to this province in real economic terms must be a major component of the successful proposal. As a matter of fact, a Regional and Local Content Working Group was formed as a part of the initial evaluation of the proposals received. Obviously, they have considered this aspect of the proposal call seriously and are satisfied that it is being addressed because three proposals are still on the table.

The job creation mentioned above is direct job creation involved in the actual construction of the project itself. Jobs will also be created indirectly in such areas as manufacturing and processing to supply the project with the needs of the developers and in the service and retail sectors. The economic spin-off during the construction phase still has to be calculated but, on the surface, without having access to a specific proposal, the impact will certainly be a major boost to our economy.

What about the economic impact after construction is completed? For our manufacturers, processors and those involved in agriculture and the fishery, a fixed crossing will provide a reliable and less costly means of transportation to get Prince Edward Island products to the marketplace. Input costs will be reduced, transportation costs will be lowered, delivery times will be more easily met and, therefore, our Prince Edward Island products will be more competitive in the world market. With our high quality and competitiveness, we will see our industries grow and diversify and this will lead to more long term employment in the manufacturing and processing sectors.

...5

Tourism will also grow. If figures presented in the tourism studies completed for Public Works Canada are even close to being accurate, the tourism industry is going to grow by leaps and bounds and will require more people to be employed, serving the needs of visitors to Prince Edward Island. This means more long term job creation. The tourism sector will also require more products from Island industries and this again leads to more job creation and greater economic impact.

The Fixed Crossing itself is going to require workers to handle the administration and maintenance of the completed bridge. Once again, long term job creation is the end result.

In the area of job creation alone, the economic impact of a fixed crossing between New Brunswick and Prince Edward Island will be of great benefit to all residents of the Province.

If one seriously thinks about the situation Prince Edward Island is presently facing, and then looks to the future taking into account no change in the economic situation of the Province, the future looks very bleak indeed. We have the opportunity to take advantage of an economic windfall that will improve our situation in the short term and well into the future. If we do not grab this opportunity, we will become ever more dependent on the good graces of the Federal Government and become a complete welfare case for the rest of Canada.

...6

We in Prince Edward Island can no longer isolate ourselves from the rest of the world. The whole world is in a constant state of change and we have to change along with it or we will not survive as a province.

SOCIAL IMPACTS

We live in an imperfect world and there are no guarantees in life. Everything we do has positive and negative consequences. What we have to do is carefully consider the positive and negative consequences of our every action and then decide whether or not to proceed. It is called decision-making, and each and every one of us goes through the exercise hundreds of time each and every day.

You, Ladies and Gentlemen of the Panel, are going to have to make a monumental decision...one that is going to affect the lives of each and every resident of Prince Edward Island for many years to come. It is in your hands to decide whether or not a fixed crossing to the mainland is built. Should you recommend the project not be built, the idea of a fixed crossing between Prince Edward Island and New Brunswick will be put to rest for at least another hundred years. Should you recommend the project proceed, the lives of all Islanders will be affected in other ways. Your decision must be based on weighing the facts, both positive and negative and deciding which will be the best decision for all concerned.

...7

Let us look at some of the areas construction of a fixed crossing will alter when it is completed.

First, "The Island Way of Life". This is a phrase that is bandied about by people when they have problems in defining, in their own minds, just what they want out of life. I have yet to meet anyone who can give me a satisfactory definition of "The Island Way of Life". Every locale, area, country or whatever has its own unique way of life. Prince Edward Island is no different. But is "The Island Way of Life" any better than the way of life in any other province of area? Prince Edward Island has the highest unemployment rate in Canada, tied with Newfoundland. Is that the Island Way of Life? Prince Edward Island has one of the highest costs of living in Canada. Is that the Island Way of Life? Prince Edward Island has the lowest per capita income in Canada. Is that the Island Way of Life?

We, the Members of the Prince Edward Island Division of The Canadian Manufacturers' Association, realize this is not what people mean when they use the phrase "Island Way of Life", but these are the very real facts at this point in our history and today these facts are part of The Island Way of Life. They must be changed and improved upon. We believe those changes and improvements can be made with the building of a fixed crossing.

If you look at the economic improvement a fixed crossing will bring to the Province, you must, in concert, consider the social impacts of the improved economic state...a higher standard of

...8

living for all Islanders...better services such as health care, education and other social services due to a rise in the revenues generated by improved economic conditions.

Some sectors of our economy have expressed concerns on specific issues. Ferry workers and fishermen are concerned about their livelihood and well they should be.

If we go back to the original call for proposals and again look at the criteria laid down in that proposal call, we will find that compensation for fishermen in the case of a disrupted fishery and compensation for displaced ferry workers forms a part of the proposal. Three company proposals have all passed the initial evaluation stages based on the criteria laid down in the proposal call, so one must conclude these issues have been dealt with.

Any development is going to create a certain amount of environmental risk. This project is no different. However, one must remember that, throughout this exercise, we are dealing with a concept only as opposed to a hard proposal. In dealing with a concept, assumptions must be made. It is the feeling of the Members of the CMA P.E.I. that, based on the assumptions dealing with a bridge concept, the information is adequate for the Panel to recommend proceeding with the project. Here again, we must refer back to the original call for proposals which laid out very strict environment guidelines. Three companies are still in the running for the project after evaluation and study of their

...9

proposals by persons considered to be experts in the environmental field. Therefore, once again one must assume that risks to the environment must have been dealt with satisfactorily.

As mentioned earlier in this presentation, we live in an imperfect world and there are no guarantees. People can ask "what if" from now until eternity and the answers will never fully satisfy. The time has come to put faith in the people who want to construct this project.

These people are not fly-by-night operators out to hoodwink the people of this Province and make a fast buck. These are world class engineers and developers who have a wealth of experience in building projects like this one and even larger ones in every corner of the world.

The history of this Province is fraught with resistance to change. Prince Edward Island residents were opposed to railroads, automobiles, electricity, school consolidation, shopping centre developments and just about every other change that has come about in the past century. If people were asked today to do without their automobiles, electricity, and shopping centres we are sure the answer would be a loud and resounding no.

The same thing applies to the Fixed Crossing. There are those who stand opposed to this development no matter what. There are also those who oppose the project out of greed for their own self

...10

interest. Those people have no reasonable fact-based argument to put forward as to why this project should not proceed except for a lot of "what ifs". The studies done for Public Works Canada answer most of the "what ifs" satisfactorily. There will never ba a completely unqualified answer that will satisfy everyone as to the no-risk factor of this project. If a firm proposal was being studied, instead of a concept, then the "what ifs" would be more than satisfactorily dealt with. Let us have a little faith in people who have been trained and who know what they are doing.

In conclusion, the Members of the Prince Edward Island Division of The Canadian Manufacturers' Association would like to remind everyone that the construction of a fixed crossing between Prince Edward Island and New Brunswick is not a government funded project. The three proposals on the table have been conceived and developed by the private sector. The funds to construct the bridge will be provided by the successful developer and that developer must prove that the project will be finished in time and on budget without financial assistance from government. The construction of a bridge over the Northumberland Strait is not a government project.

Ladies and Gentlemen of the Panel. The Members of the Prince Edward Island Division of CMA have considered the initial studies and evaluations and the final study reports released last December and we feel this project should proceed to construction as a major economic benefit to Prince Edward Island and the whole Atlantic Region.

Thank you.

CUMBERLAND DEVELOPMENT AUTHORITY
CDA

32 CHURCH ST.
BOX 546, AMHERST
NOVA SCOTIA
B4H 4A1
PHONE
1 (902) 667-3192
FAX
1 (902) 667-2270

Presentation: Northumberland Strait Crossing Project

Environmental Assessment Panel

Charlottetown, Prince Edward Island

March 28, 1990

Introduction

Mr. Chairman, Panel Members, Ladies and Gentlemen. Thank you for this opportunity to present the views of the Cumberland Development Authority who support the construction of a bridge to link Prince Edward Island and the Maritimes.

Our Situation

The Cumberland Region consists of four incorporated towns and a large rural municipality located in Northern Nova Scotia, adjacent to the New Brunswick border. We number together about 35,000 people. Like Prince Edward Islanders we often have a sense of isolation, being bounded on our

"nurturing sustainable economic development" southern edge by the physical and psychological barrier of the Cobequid Mountains, on the north by the Tantramar Marshes and the political boundary between New Brunswick and Nova Scotia, on the east by the Northumberland Strait and on the west by the Bay of Fundy. True, we do have an artery of the Trans Canada Highway passing through our Region, but that seems to act more like a tunnel taking most of the 800,000 odd vehicles entering our Region rapidly through to their eventual destination. There has traditionally been a feeling of isolation from mainstream Nova Scotia and a feeling that we are a "have not" Region of the Province. Our economy is diverse with a good mix of primary, manufacturing and service sector activity but that economy is stagnating. Our median annual income was $27,082 for 1985, 17.8 % below the Nova Scotia median and similar to that of Prince Edward Island. We have a high unemployment rate particularly in winter months when primary sector workers are not working. Social transfer payments to the Region are large, amounting to $50,614,000 in 1985 (19.0 % of our income), the most recent statistics available to us. Since 1951 our Region has lost approximately 4,000 people albeit slowly and incrementally. Our age class distribution is now skewed toward the older age classes much more dramatically than for most other Regions of our Province and we are forecast to be losing an average of 100 people per year from our population through to the year 2006. Too many of our young people leave our Region for lack of work and opportunity and too few emmigrate to our Region to find work. The real value of the commercial tax bases in our communities has declined at a time when there are growing needs for large investments of public funds to improve basic infrastructures (sewer, water, roads). With the decline in population has come the predictable need to down size our public education system and that is happening. Our school population has dropped from 6843 in 1985 to 6285 in 1989, and is forecast to be 5878 in 1994.

The socio economic picture being painted for Cumberland here may seem overly bleak and that set of scales should be balanced. We have a superb small town-rural lifestyle with high quality year round amenities and attractions throughout our Region. With golfing, skiing, hunting, fishing, sailing, etc. we rank with and even exceed many other regions in terms of a quality small town/rural lifestyle. The people are proud of their Region, heritage and way of life and they want to protect those assets. They are hard working and by nature want to take initiative and be independent, shunning a welfare mentality. In these aspects we share much with Islanders. Because of our economic circumstances our business managers have had to manage carefully and that brings strength and also stress. We need and economic boost!

Rebuilding

Challenged by our economic circumstances, over the past five years, the five Cumberland municipalities, our citizens, our businesses, our development support organizations and our elected representatives have come together to examine our situation, to plan and to take joint action for economic progress. We are rebuilding the Cumberland Region economy from within, with the full support of all levels of government by building heavily upon local and community based initiatives, and by building upon our strengths. We are building capacity by creating new institutions (the Authority for example) and renovating existing institutions and attitudes for development. Supported by our Regional organizations, our communities are involved in extensive processes of examining their situations and building strategies and action plans for expanded sustained economic growth. Traditional isolationist and competitive modes of behaviour among our communities are giving way to cooperative ventures. We have come to the realization that only through this cooperative linked approach can we hope to build a stronger economy that will be competitive in the dynamic regional, national and international markets of the future. We are ready for expanded development!

Building Bridges

And now to consideration of the specific subject before us today . . . "the fixed link". There is no doubt that the Northumberland Strait bridge construction program would have significant positive short and probably long term social and economic benefits for the Cumberland Region. Many of these potential benefits have already been described for you by my compatriots from the Amherst Area Development Commission and the Cumberland

County Economic Development Committee. It is sufficient to say that we are ready in Cumberland to provide our share of materials, labour, services etc. for the project. We are getting ready institutionally to accept the development impacts and to exploit the opportunities for our businesses. We are getting ready institutionally to mobilize our labour force and to provide the training required for our people to be full participants in developing this massive project.

We do have concerns about the possible negative impacts on ice conditions, microclimate and the fishing in the Northumberland Region and about possible negative impacts upon our municipal and highway infrastructures. We are concerned about the welfare of CN Marine workers whose livelihoods will be affected. The magnitude of these impacts seem manageable given effective planning and cooperation. Several issues are very technical and we admit are beyond our capacity to evaluate . . . but we know those issues are in good hands. We are confident that the potential negative impacts of the project on our area can be managed effectively particularly give the new set of institutions and initiatives in place in our Region.

Much of the Cumberland Development Authority's work has to do with "building bridges", not of the physical type, but of the human and business development type. And it is through this "bridge building" process that we are gaining the capacity and strength to sustain our way of life and to build our economy for dramatically increased competition globally. The improved efficiency of the Northumberland crossing to PEI will bring us all closer together physically and economically. New opportunities for tourism product development will emerge for Cumberland, Westmorland and PEI. Through exploitation of these opportunities we all gain for we can offer a more attractive product to the international market, which brings more money into our economies. In order to exploit these and other emerging opportunities we will need to be open to each other and open to the need for better cooperation, clearer communication and for effective partnershipping. Those are the values which will sustain us in the challenging times ahead and those are the values which the fixed link can help strengthen for our collective long term economic and social benefit.

Presented by: Jim Stanley
Chief Executive Officer
Cumberland Development Authority

A SUBMISSION

TO

THE FEDERAL ENVIRONMENTAL ASSESSMENT

REVIEW PANEL REVIEWING THE NORTHURMERLAND STRAIT

CROSSING PROJECT

DR. DAVID H. BARNES CHAIRMAN

PRESENTED BY

THE PRINCE EDWARD ISLAND ROAD BUILDERS' ASSOCIATION

MARCH 28th, 1990

CHARLOTTETOWN, P. E. I.

The Prince Edward Island Road Builders Association is an organization with members who are actually involved with the construction of Roads, Streets, Airports, Bridges, etc.

We also have member firms from the supply and services side, i.e.: Oil Companies, Machinery Suppliers, etc. These Firms are located throughout all the Maritimes and Quebec.

Our Association has endorsed the Fixed Link project from the inception, and we have voiced our support for this project on many occasions.

This project would be a very large Construction Project with an estimated cost of one billion dollars.

A project of this size would require a large labour force from Prince Edward Island, New Brunswick and Nova Scotia, both skilled and unskilled.

This project would employ many services that exist at present in the three provinces, such as rental of equipment, purchase of aggregates, with the Associated Trucking involved. The purchases of all sorts of related hardware and supplies.

A project of this size would require an engineering office located on the site, which would put it in the Borden Area. Jobs related to Project Management and inspections, and surveying, etc. will be many. Skills learned during Construction could help in obtaining employment after the completion of the Project.

The first item we wish to discuss is the benefit to Tourism as it will apply to Prince Edward Island if a Fixed Link were in place.

We can see a large increase in Highway usage by not only automobiles, recreational vehicles, but by Motor Coach also.

The Motor Coach business is becoming the backbone of the Tourist Industry here in Prince Edward Island.

Most Tour Operators work on a tight schedule and waiting times at the ferries sometime discourage their return journeys.

The novelty of a Ferry Ride soon wears off when you have to wait for extended periods in a compound with little to see and do. As traffic increases, so will the need for better roads and highways.

As new tourist developments are built and expanded, so are the parking lots, roadways, etc. to service them. These types of increases in construction reflect on goods and services purchased as well as seasonal employment.

The Provincial Government also benefits through the increase in revenue from Fuel Tax, Sales Tax, etc.

. 2

The spin off in Sales, etc. for all business is a great financial boost for all shop-keepers, craft people, as well as the aforementioned Tourist Operators.

A Fixed Link would put Prince Edward Island in contention for a possible site for new Processing Plants, Assembly Plants, or New Manufacturers who depend on continuous transportation for their products.

Trucking firms have statistics to support their high operating costs caused by long waiting periods, and long ferry rides as opposed to the driving time required to go ten miles.

This Province has recently adopted a non-preference policy with the other Maritime Provinces. This would mean much small contracting could take place in NorthernNew Brunswick and Nova Scotia.

There is too much waiting time at present which prevents a contractor taking a group of workmen back and forth to do small contracts.

Aggregate used in paving and other types of construction could be hauled with no delayfrom Gravel Pits and quarries in Northern Nova Scotia and New Brunswick. We require mainland aggregate for our paving projects. It would also be a boon to the Island Truckers who could use the extra work.

It has always been said that our biggest,and most valuable export is our youth.

I am sure we all know friends and relatives who have their children educated on Prince Edward Island then shipped off to other areas of Canada so they can find work in their chosen fields.

We have a population base of 130.000 people, slightly more than the spectators at the Rose Bowl Game in Pasadena on New Years Day.

Could you imagine what kind of a country Japan would be if they continually educated their youth and then sent them away from their home?

If our population base even doubled to 260,000 people, we could increase the number of professional people by at least 1/2 as many as we now have. We could increase the related jobs in nearly all other fields of endeavour by the same ratio.

We still would not be overcrowded, as some people think may happen. This would only give the entire Island a population of a city such as Moncton or Halifax.

We do not have one dense population area on the entire Island.

We have beautiful areas of Prince Edward Island including beaches, that are undiscouvered and unused.

There are many areas that could be utilized for seasonal and all season living without crowding anyone.

. . . . 3

We don't see an invaision of undesirables during Tourist Season. We see an extended Tourist Season, something that Prince Edward Island Tourism has been trying to achieve for some time.

The extension of the season into fall would be a boon for many Tourist Operators who have to compete with the "Beach""areas during the summer.

Many seniors who would prefer to come to the Island to see a play or live at a country "Bed and Breakfast Place", or visit Woodleigh Replicas or other similar attractions would be able to do so at a lessor cost and more conveniently.

We always hear the term, "The Island way of Life". The Island way of life for some, "myself" included, is quite different from that of the person who can't find work and if they do it is only seasonal or part-time or of short duration.

I know people that always have to buy an old used truck or car, have to cut their own wood for heat. Some of these people exist on Unemployment Insurance and Welfare, etc. They buy their clothes at the Flea Markets and do odd jobs in exchange for food that they can freeze if they are fortunate enough to have a freezer.

These people never get a holiday off the Island because they cant afford to go anywhere. We think as long as there are Food Banks and Soup Kitchens, such as"the Upper Room" that we still could improve the lot of many Islanders who rely on this service.

We think a Fixed Link would bring enough small industry to the Province that could employ these people, and hopefully change their "Island way of Life" for the better.

We now come to Borden, and the people who will Lose Their jobs due to the removal of the Ferry.

We understand that there will be early retirement for some, and that new jobs in the area wil be offered to them first.

The Link will take at least 5 years to construct, with much activity occurring in the Borden area. We understand that a large amount of fabrication, etc. will be located in the Borden Area. It is possible that some of these activities could have an existence after the Link is constructed.

People employed in this fabrication will have an opportunity to learn a skilled trade that could serve them in the future.

We also understand that many jobs will be created in the operation of the Bridge.

These jobs we understand are to be offered to the displaced Ferry Workers also.

. . . . 4

The Town of Borden is in a unique situation. Every vehicle that comes to the Island has to pass through this Town. The problem now is you arrive at Borden, usually in a great hurry for fear of missing the Ferry. You are then ushered into a chain link enclosed compound to await your turn to get on the Ferry, if there is enough space left, and if you have allowed enough time.

While in the compound you really don't have a great variety of things to do or see. You can not leave the area, or you lose your place in line. Your choices are Fast Food, Arcade Machines, a sleep in the car or a small souvenir outlet during the summer months.

Borden is situated on the water where a Marina could be built. People from all three Provinces could keep boats there. The service industry in this connection could be a business for someone in this area.

The Town of Borden could be an area for a Theme Park with easy access from the two neighbouring Provinces via the Link.

The possibilities are endless for Shops, Motels, Hotels, Boutiques, Craft Outlets, Campgrounds, etc.

The problem as it exists now is that traffic coming to the Island has been delayed for various reasons. This results in traffic hastily passing through Borden for other destinations.

We think that Borden with all its natural assetscould become one of those desirable destinations.

We have recently seen the New Food Technology Centre open in Charlottetown.

We understand that many Island Primary Producers are using this service to try to add value to their respective products.

We can see many cost advantages to the Agriculture and Fishery Industry to get their products off the Island, to other markets quickly, and not lose this added value waiting on the dock.

In conclusion, we think that the Fixed Link would have a very positive effect on all aspects of the Island Economy and the Island way of Life.

Thank you for the opportunity to express our opinions on the Fixed Link.

BRIEF TO THE ENVIRONMENTAL ASSESSMENT REVIEW PANEL ON THE FIXED LINK

DATE: March 28, 1990

TIME: 7:30 p.m.

LOCATION: Charlottetown Hotel

TOPIC: A Paper Prepared by the Canadian Atlantic Fisheries Scientific Advisory Committee entitled "A Review of DFO Concern Regarding Possible Impacts of a Fixed-Link Crossing of Northumberland Strait"

CAFSAC Document 89/16

PRESENTER: James W. Macnutt
appearing as an interested and concerned citizen, but not appearing in a representative capacity.

I have requested the opportunity to appear before you this evening to express my continuing concerns respecting the construction of a fixed-link crossing between New Brunsiwck and Prince Edward Island.

My position on the issue should be clearly articulated at the outset, so that you may understand the context in which my remarks are made. I am not opposed to a fixed link, nor am I in favour of a fixed link; I wish to ensure, however, that the objective of the process is honoured. That objective is to ensure that any change in the status quo - any change from the providing of travel communication by car ferries - be on the "no net loss" principle established by the Government of Canada. I understand this principle to mean that the construction of a fixed link must not result in consequences to the environment and fisheries that are negative in the middle and long term.

To determine the impact of the construction of a fixed link - irrespective of what form or character that link is to take - necessitates certain scientific research and consensus as to the results of the construction of that link. It is my position that inadequate and insufficient research has been conducted and further that no consensus exists in the scientific community which gives us as residents of Prince Edward Island the comfort and assurance that we know the consequences of construction on the environment and have determined that the consequences are consistent with the "no net loss" principle identified earlier.

I have chosen to refer to the Canadian Atlantic Fisheries Scientific Advisory Committee Report (CAFSAC Research Document 89/16) entitled "A Review of DFO Concerns Regarding Possible Impacts of a Fixed Link Crossing of Northumberland Strait" because this document appears to me to most clearly demonstrate the lack of consensus in the scientific community respecting the impact of a fixed link on the environment and fisheries. It also clearly expresses doubts as to the adequacy and quality of much of the scientific study conducted to date. It seems to me that this paper clearly demonstrates that the information, planning and analysis necessary to conclude that a fixed link, at least in the form of a bridge, would be environmentally and in the fisheries sector neutral in terms of impact has not been completed, available or in time likely to be available.

Lets consider the paper itself and for this purpose I propose to take certain extracts from the paper and quote them and in so doing I am endeavouring to remain faithful to the message and opinion of the author of the report.

At p. 1 "This series documents the scientific basis for fisheries management advice in Atlantic Canada. As such, it addresses the issues of the day in the time frames required and the

Research Documents it contains are not intended as definitive statements on the subjects addressed but rather as progress reports on ongoing investigations."

At p. 2 "Abstract: The history of proposals for fixed crossing from New Brunswick to PEI is reviewed. Possible impacts of current proposed structures on the marine ecosystem and fisheries are discussed. It is concluded that the tunnel, as proposed, would have negligible impacts. Impacts of proposed bridges are impossible to evaluate at this time. Biological impacts would probably be consequences of interactions of the bridge structures on sea ice and physical oceanographic properties of the strait. Studies done on these interactions were thought to be incomplete primarily by not considering possible important factors, and by making some questionable assumptions about the interactions which were considered. With inadequacies in the ice-physical oceanography-bridge interactions, projections of biological impacts consequent to the physical oceanographic impacts were considered unreliable. Specific areas of concern are detailed for ecosystem dynamics, invertebrates, and finfish."

At p. 5 "Initially ten studies were prepared:

- Fishery and environmental resources
- Erosion and scour
- Winds, waves, tides, and currents
- Ice climate
- Vessel traffic and bridge safety
- Social impacts
- Financial and economic feasibility
- Substructure design
- Superstructure design

- Tunnel feasibility"

At p. 5 "While admittedly such a profusion of new research was overwhelming in the information it generated, the chief flaw in all of this was the failure to provide adequate coordination among the twenty or more consulting firms engaged to carry out the work. Indeed, the consortium selected to prepare the GIEE did not appear on the scene until most of these studies were either completed or so well along that their direction could not be altered. Individual consultants neither shared their preliminary findings with those working on related topics nor did they all have a common conception of what form the hypothetical crossing would take. Of course, quality of experimental design and confidence in conclusion varied tremendously from study to study as well.

For any individual or group to take the results of this body of work and construct a cohesive and credible generic IEE was indeed asking a lot. To complicate matters further the GIEE consultants insisted upon the use of a Risk Scoping Matrix methodology as the corner-stone of their treatise. That approach was neither entirely agreed to by specialist advisors in government nor adequately verified internally through quality control and testing procedures."

At p. 6 "For the reasons expressed above, DFO concluded that, although the GIEE final draft was an impressive effort and much improved over its initial drafts, several of its conclusions regarding environmental impacts in the marine environment could not be accepted."

At p. 5 "Other sections of this document will focus on the critical concern of DFO for ice climate as affected by a bridge structure. It is only mentioned briefly here as an example of how even well-prepared background studies may be internally flawed, resulting in compounded misunderstanding in other areas of impact analysis.

Original ice climate analyse prepared by F.G. Brercha and Associates used numeric modeling techniques which employed a variety of deterministic and probabilistic variables depending upon the availability of reliable data sets. Crucial information on ice distribution, floe velocity and floe thickness was largely extrapolated from limited data files. The physical dynamics described by the equations in the model were somewhat conjectural as well, because no tested and proven model for ice dynamics in a semi-diurnal tidal regime exists.

Despite these uncertainties the authors were prepared, based upon their lengthy experience in this subject area, to come to some relatively definitive conclusions. DFO scientists examining the same data and methodology would have preferred a more cautious approach. Nevertheless, the report was submitted and interpreted simply as concluding that ice dynamic changes to the extent of delayed ice out or altered micro-climate were not at issue. With this in hand, other consultants preparing reports on fisheries and the environment simply eliminated potential ice-related interactions from consideration. This left the authors of the GIEE with no choice but to follow suit and deny the possibility of ice climate impacts as a serious risk."

At p. 6 "The consequences of a mistake in evaluating ice climate impacts is far more devastating than would be the consequences of mistakes in some other areas where conclusions have been drawn from background reports. However, other background studies also are limited in their predictive ability by weak data bases and, in some cases, questionable hypotheses and methodologies, which nonetheless were ignored when their results were absorbed into GIEE analysis. Furthermore, all background studies considering the bridge option are additionally limited in their generality by the structural design criteria they assumed. The assumed design criteria were neither consistently observed between reports nor necessarily consistent with the criteria of any of the six bridge designs being evaluated. Thus their conclusions must be challenged and reviewed once a final design is on the table. This will be the task of those charged with preparing a final, specific IEE (SIEE)."

At p. 7 "In summary, the DFO scientific and technical working group has raised for consideration a variety of fisheries-related concerns, some of which are adequately addressed in the GIEE and studies carried out to date and those which have been either downplayed or ignored. A listing of the most crucial of these, though not necessarily in strict order of priority includes:

1. Ice Climate

The effect pier spacing and design may have on ice dynamics is not at all certain. If the bridge should act to jam ice to the west of the crossing a number of possibilities occur. Prolonged ice cover during the season may affect light penetration and primary production, surface water temperature (with effects on production, herring migration, lobster molt cycles, etc.) and possibly other ecological features through synergistic or cumulative interactions. A consistent delay in the date of ice out could similarly alter the time of arrival of herring on the spawning grounds and also affect fishermen's ability to take part in early spring fisheries for herring and scallop throughout the Strait. A tendency to either diminish ice distribution or reduce floe size east of the crossing would interfere with grey seal pupping.

An acknowledged tendency for ice accretion outward along the piers will extend the limit of land fast ice (anchor ice) possibly resulting in greater distribution of bottom scouring during ice-out in particular.

2. Sediment Movement

Once again, pier design and spacing may have an appreciable effect on local sediment scour action, particularly in the shallow shore zone where coastal erosion is already a problem. Redistribution of destabilized sediments would be most harmful to sedentary benthic species like scallops but could also harm those species which have demersal, adherent eggs (eg. herring). Overall destabilization of the benthic community would be particularly important in winter when it takes on principal significance as the site of most primary production."

At p. 8 "Dredging likewise would liberate sediment particles with similar effects to those described above. This would be of shorter term duration and somewhat more mitigable. However, dredging normally has more acute impacts on fishing gear."

At p. 8 "With some designs now proposed to almost double (the) blockage of the Strait's cross-sectional water flow, fears are renewed that changes will occur that will further destabilize an already dynamic body of water.

Consequences are unknown but would be tied in with the sediment movement problems already described and might also alter patterns of fish and invertebrate distribution, such as the patchy concentration of scallops for which no present explanation is available. Increased currents would also aggravate the navigational hazards constituted by 46 to 86 new obstructions (piers) traversing the Strait."

At p. 8 "No matter what design is chosen, a considerable portion of productive bottom will be consumed. This will affect habitat availability for at least three commerical important species (scallops, lobsters, and herring) as well as a diverse array of beneficial lower organisms and non-commerical fish. Although there may be merit in some suggestions under consideration regarding the modification of pier design to optimize habitat replacement value, it is doubtful that the reduction in production of desirable species can be totally offset."

At p. 8 "(With respect to interference with the fishery) causes are diverse; exclusion zones during construction, gear damage or loss caused by construction vessels or dredging, concentration of fishing effort, navigational hazards due to the structure (eg. impact on drift netting) and the ephemeral and unpredictable likelihood of permanent ecological change affecting commercial landings. At this stage, all of these are the subject of contingency planning or compensation or both. There is no assurance the planning will prevent all problems from arising."

At p. 9 "There are many potential changes brought about by the construction of a bridge of any design in the Northumberland Strait. Some of these changes are certain, some are conjectural, and some may never be detected in the background of dynamic variability. Experience has shown that there will also be changes that none of us would predict. All that can be expected at this time is to focus attention on a few critical changes that are likely to occur so that through proper planning and mitigation their impact will be lessened to acceptable levels."

At p.9 "Assessment of the impacts of the environmental changes, either natural or man-made, on ecosystems and the biological resources we harvest from them requires an understanding of the natural variability of the system... Few studies exist to quantify the natural variability of these processes or to assess their linkage to production of harvested species."

GAPS IN PRESENT KNOWLEDGE

At p. 10 "Reviews were carried out for DPW during the current (1987-88) proposal for a fixed link crossing, to develop the terms of reference for the Initial Environmental Evaluation. The Fisheries Resources Section of the IEE pointed out that there have been no full seasonal studies of production by phytoplankton, zooplankton or benthic communities in any area of the Northumberland Strait. Previous reviews of benthic fauna, shellfish, and inshore fishery resources in Northumberland Strait (Amaratunga 1976 a, b; Caddy et al. 1977; Stasko et al. 1977) reported species and biomass distributions but no information on levels of productivity. thus, there is no background data on spatial and seasonal differences in biological production against which changes due to construction activity or the crossing structure itself can be evaluated."

At p. 10 "The DFO Working Group on the Fixed Link identified a lack of information on ice formation and dynamics as an important obstacle to evaluation of the environmental impact of a bridge. Information on ice floe size and thickness is needed to assess the probability of ice-jamming."

At p. 10 "Dredging and side-casting of bottom material will be required for pier support construction. The proportion of area in the Strait disturbed by these activities is small relative to the total area, but the impact will be visible and have the most impact on species, such as scallops, that are substrate selective in their settlement areas. There is a major scallop bed in the central Strait at the proposed crossing site..."

At p. 10 "Concentrations of suspended particulate matter are naturally high in the Strait (Kranck 1971) due to tidal resuspension and high production by phytoplankton and attached macrophytes. The impact of increased turbidity would be to decrease light penetration in the water column even further and thereby decrease phytoplankton production. Benthic fauna can be buried and die from anoxia if.."

At p. 11 "Assessing all the potential impacts of a fixed crossing link on the oceanographical regime of Northumberland Strait is close to an impossible task as it presupposes an almost perfect knowledge of the various space and time scales of difference phenomena before the after construction. Such, obviously, is not the case. Discussion has been limited to first order effects, i.e. those which can be clearly identified and are amenable to analysis and, most importantly, to measurement. Based on the above criteria, there are four areas to look at: a) tidal dynamics and changes due to alterations in bottom topography and cross-sectional area, b) sea ice regime and the process of ice jamming, c) enhanced mixing zones due to bridge piers embedded in an alternating, stratified tidal flow, and d) sedimentary regime and the problems related to dredging and dumping."

ISSUES THE AUTHORS CONSIDER NOT YET ADDRESSED BUT MUST BE FOR A FULL UNDERSTANDING OF THE IMPACT OF A FIXED LINK.

At p. 16 "1) Is it possible to obtain a realistic baseline data set with which to differentiate between the natural variability of the area and the impact of the project?

2) Would the fixed link affect the larval population dynamics of invertebrate stocks in a positive, negative or neutral fashion? In particular, the Tormentine scallop and lobster fisheries?

3) Would the dynamics and productivity of food webs be perturbed to the point of altering the population dynamics of invertebrate stocks?

4) Behavioral modifications due to sublethal toxicological effects, such as noise, light, silt which may alter;

5) Ice climate and regime changes, whether it manifests itself as time of formation, amount of cover, duration and disappearance, may impact on the following:

- habitat destruction due to scouring

- dynamics and productivity of food webs
- degree days of physiological growing period, in particular, lobster, eventually altering molting period, which may ultimately modify the fishing season and trapability
- basic life cycle modifications, recruitment processes"

At p. 17 "6) Does the "greenhouse effect" come into consideration within the context of the project, with the predicted increase in ocean water levels and water temperature? What is the temporal scale to consider? Would the NSCP modify the predictions? If so, in what direction?

7) The creation of artificial reef habitat from bridge piers may or may not result in a real increase in habitat for lobster. Are the lobster habitat limited in the vicinity? In this regard, the results of Scarratt's work in Egmont Bay may be applicable but perhaps inconclusive. Productivity of marine plants - periphyton, etc., would probably increase and alter the food web dynamics and general productivity of the area.

8) What is the resistance of the Tormentine scallop bed to disturbance? Preliminary unpublished data suggest it may have lower growth rates than other areas. Does this imply lower production and low resiliency to environmental perturbations? What are the larval retention mechanisms operational which maintain the population structure? Would an increased mixing area caused by the pier placement alter the bed size and production?"

At p. 22 "Summary

The overview presentation provided a background on the Northumberland Crossing project, its historical perspective, and ways in which the current environmental review process differed from the usual process. There were three particular concerns highlighted.

1) Background studies were carried out with little coordination and little opportunity for DFO to influence terms of reference.

2) The Risk Scoping Matrix approach used in the Generic Initial Environmental Evaluation was considered subjective, methodologically flawed, and unverified, and was employed despite objections from Science Branch staff.

3) The key analysis of ice dynamics was based on a questionable model, excluded consideration of significant variables and interactions, and relied on weak data bases. Nonetheless, model results were used generally without qualification by consultants preparing reports on other aspects of the potential impacts of the project.

The environmental evaluations considered neither intra-project cumulative impacts nor potential positive environmental effects. These were considerred serious deficiencies. It was also stressed that a tunnel, rather than a bridge, would be nearly environmentally neutral, at least for DFO's concerns, and should be the department's very strongly preferred option. The actual process also had compromised the Science Branch's ability to ensure high quality evaluation of potential impacts of the project, through inadequate input to terms of reference, inadequate influence on consultant's approaches to their tasks, and unrealistic deadlines for reviews."

At p. 24 "It was also noted that the lack of long-term, well focused research on effects of the physical environment on the marine ecosystem makes the Branch unable to provide meaningful predictions of impacts, and unable to provide defensible advice on whether an observed change in the system is likely to be the consequence of any specific undertaking."

At p. 24 "The Physical Oceanography review echoed the emphasis on natural variability and its implications for the ability to predict impacts and attribute subsequent changes to impacts of projects. Four aspects of the physical environment were highlighted as possibly affected by a bridge: tidal dynamics, sea ice, water movements and mixing, and sediment transport. In each area, there are important"

At p. 25 "first-order analyses of possible bridge impacts which have not been done. As these analyses are based on physical processes, they are possible with current tools and do not require additional data collection. Particular importance was given to the need for analyses of residual currents, mean flows, and potential resonances between tidal periods and pier spacing across the Strait. None of the features have been considered in consultant studies but may have important implications for the impacts of a bridge; for example, by introducing nonlinearities to interactions thus far treated as simply linear. The ice analysis in the Bercha report was also noted as lacking qualified peer review; and it was felt that expert opinion should be sought from appropriate experts on ice structure and dynamics, possibly at the Ice Research facility of NRC, in St. John's."

At p. 25 "The presentation on invertebrates focused on the many unknowns and unanswerables which preclude prediction of impacts on invertebrates. The concerns were generally the same as covered under Ecosystem Dynamics, with discussion also bringing out doubts about suggestions the project would actually result in creation of new or improved habitat. The possibility that the greenhouse effect would further complicate attributing changes to project impaacts was also felt reasonable."

At p. 25 "In the consideration of finfish, it was felt that herring were most vulnerable to impact of bridge construction. Although the number of separate spawning beds and complex stock/substock structure of herring give the stock as a whole resiliency to local impacts, a spawning bed eradicated during construction might not be recolonized for decades. The paucity of knowledge of distribution and movement patterns of larval and juvenile herring also leaves the branch unable to evaluate the potential for disruption of the life history cycle by bridge construction, or effects of the bridge on the physical environment. Because of the importance of the infrequent very strong year-class to support commercial herring fisheries, the opinion in the GIEE that loss of a single year-class of herring would be a small impact is unacceptable. Evaluating impacts of a bridge on gaspereau is essentially impossible, because of the lack of knowledge of distribution and movements of juvenile gaspereau once they leave estuaries. It is unlikely that a bridge will impact on the locally spawning

> hake stock severely, and the very high fishing mortality would make it nearly impossible to detect an impact were one to occur. No other fish stocks are thought to frequent the area in numbers large enough for concern."

As I understand the terms of reference of the Environmental Review Panel on the Fixed Link:
...the prime focus of the panel will be to examine the environmental and socio-economic effects of a bridge cross, both beneficial and harmful."

The Canadian Atlantic Fisheries Scientific Advisory Committee report clearly deals with the environmental effects of a bridge and also addresses the following additional responsibilities of the panel which are specifically addressed in the paper:

> "The effects of construction, operation and maintenance of the project and associated facilities on the environment:
> 1.(a) impacts on marine animals (including fish) and marine plant populations and their habitats,
> (c) changes in tides, currents and inshore dynamics,
> (d) changes in the ice climate, including formation and breakup,
> (g) impacts of dredging and spoil disposal,
> (i) physical interference with commercial fishing activities,
> 2. Cumulative effects related to other developments and human activities, and such non-local factors as world-wide climate change;
> 3. The degree of risk associated with the above effects, the need for contingency planning, and the effectiveness of proposed mitigation measures and measures to deal with any residual impacts;

4. Plans for compliance and effects monitoring during construction and operation;
5. Effects of the environment on the project (e.g. atmospheric, marine, geological, security, etc.); and
6. Where appropriate, the environmental and socio-economic effects of replacing the existing ferry operation with a fixed crossing."

The Canadian Atlantic Fisheries Scientific Advisory Committee report is therefore relevant to your considerations in terms of subject matter.

The report is also highly important because it discloses that a significant scientific group within the Government of Canada are of the opinion that the scientific evidence available in 1989 was incomplete, conflicting and inadequate. It clearly discloses that there are substantial disagreements within the scientific community employed by the Government of Canada on a consulting or full time basis. It discloses that there is insufficient or flawed information on which to determine whether a bridge would be environmentally neutral or whether there would be "no net loss" in the environment or in the fisheries if a bridge were built. Also it asserts that if a tunnel were built the environmental and fisheries concensus of this group of scientists would be satisfied.

Why then are we in a position today where we are receiving conflicting advise from scientists and others as to the impact of a fixed link? Simply because of the reverse order in which this process was conducted as noted in the terms of reference of the Environmental Assessment Review Panel"... in December 1986, the Federal Government, in response to unsolicited private sector proposals, authorized the Minister of Public Works to conduct financial, socio-economic and environmental studies related to the feasibility of the fixed crossing". The process was in reverse in that the Government of Canada accepted the assumption that a fixed crossing of some kind was advisable and proceeded piecemeal and in an uncoordinated manner to prove that it was advisable and to prove its point. While this is water under the proverbial bridge it is important to keep this in mind when answering the question: why so many conflicting scientific and technical opinions; simply because the issue was not developed in an orderly, logical and reasoned process with each succeeding step being based on a concensus or decision at the earlier step.

My submissions are as follows:

1. The scientific and technical evidence available to the Government of Canada at this time is incomplete, inconclusive and inadequate to enable a decision that a bridge would be environmentally neutral - that there would be no net loss to the enviornment or particularly to the fisheries;
2. The paper prepared by the Canadian Atlantic Fisheries Scientific Advisory Committee clearly evidences the mixed scientific and technical opinion now prevalent;
3. It is clear that at the very least additional scientific research and analysis is necessary to enable to scientists to make the decision and make thie recommendations necessary for this project to proceed;
4. The primary issue of whether a fixed link is a necessary addition to the Prince Edward Island transportation system mut be clearly addressed and the process of environmental review proceeded with only if it is concluded that it is;
5. The various forms which the fixed link may take should also be reviewed fully - the benefits of a rail tunnel or a tunnel for vehicles should be thoroughly reviewed as it seems clear that to the extent there is any concensus in the scientific community it is that a tunnel would be environmentally the least damaging to the environment;
6. One final question: is the disruption to the fishery, to the environment, to employment, to community life and standards worth

preceived benefits of a fixed link? Is all the chaos and uncertainty worth the end product, be it a bridge or a tunnel?

7. There is one solution to our transportation problems which would be environmentally neutral: namely, improved ferry service.

Presentation to the Environmental Assessment Panel
on the
NORTHUMBERLAND STRAIT CROSSING PROJECT

Department of Energy, Mines and Resources

March 1990

EMR Presentation to the Environmental Assessment Panel on the Northumberland Strait Crossing Project

---

Energy, Mines and Resources is the earth science department of the Federal Government. In our review of the Bridge Concept Assessment and supporting documents, we have examined those aspects of geological conditions that, through the influence of the bridge or it's construction may affect the environment, and we have commented on the geological features and processes that may affect the integrity of the project. Those effects that the project might have on the environment are turbidity from dredging, and sediment transport in shoreline areas. Geological features that may impact on the project are the stability of foundation materials, current or ice scour at pier footings, sediment transport and seismic activity.

Turbidity

It is proposed to dredge unconsolidated material from the seafloor to provide suitable foundation conditions for the pier footings. Both the dredging activity and the spoil disposal will mobilize fine-grained sediments into the water column. Large areas of the seabed consist of a thin gravel veneer overlying subsurface tills which contain up to 50% silt and clay sized sediments. As the unconsolidated material at depth is not in equilibrium with that at surface, there will be an extended period of time during which fines will be mobilized. This time period will depend upon water depth at the spoil disposal site, proportion of coarse material in the spoil, and frequency and severity of bottom currents.

Localized deposits, apparently of dredged spoil, exist along the proposed alignment. Their grain size and chemical composition is unknown. This material may be remobilized by dredging for caisson foundations.

Sediment Dynamics

Geophysical surveys of the Northumberland Strait undertaken by the Geological Survey of Canada show seafloor features that indicate movement of sediments in a fairly dynamic environment. While the nature of the bedforms is known from the surveys, (Fader, 1988, Fader and Pecore, 1989), the frequency of entrainment of sediment types, the temporal and spatial distribution of bedform types, and the pathways by which sediment is transported alongshore and offshore, between areas of bedforms, and between onshore and offshore areas is largely unknown. These areas of uncertainty are more likely to impact upon the project than upon the natural environment.

The project is expected to have little impact on the existing large scale patterns of mobilization or deposition of sediments. Large volumes of sediment are transported alongshore, although there is little net deposition. There is some possibility of temporary sediment accretion adjacent to planned shore structures, as noted in the report by Eastern Designers Limited. This would be locally beneficial, but would tend to promote shoreline erosion down-current from the project.

Large volumes of sand are also migrating from west to east in the deeper water areas offshore. This sand may tend to infill dredged excavations during construction.

It is not known what effect aggregate dredging for caisson filling would have on shoreline processes. Removal of offshore aggregate may affect the supply of beach sediment, leading to erosion where sediment transport processes are now in equilibrium.

The pier footings, by their presence, will increase current velocities in their immediate vicinity. This will locally increase the potential for current induced scour at the caisson footings, and some deposition may occur on the lee side of caissons. Where the caissons are located near shore, the potential for shoreline erosion is increased, although this would occur only immediately adjacent to the caisson.

The caissons may be founded on either bedrock or unconsolidated material. Of these, bedrock is the preferred option, although it should be noted that local mudstones are quite soft and are susceptible to erosion. Installation of riprap will be required to protect the foundation materials.

Ice Scour

Scouring of the seafloor by ice occurs adjacent to both the north and south coasts of Northumberland Strait. Grounding ice flows, and the keels of pressure ridges cause scour marks, with the latter being responsible for the most severe erosion. Scour marks occur in water depths of up to 11 metres. As ice scouring has the potential to move substantial quantities of sediment, protection of pier footings will be required. Intermittent replacement of riprap may be required where severe scouring removes this protective material.

Foundation Conditions

Stability of the geological materials on which the caissons are founded is of critical importance. The till overlying bedrock in Northumberland Strait is thought to be competent, and therefore suitable as a foundation material. Seismic survey evidence obtained by the Geological Survey of Canada in 1988 shows a discontinuity, indicating non-homogeneity within the till at its thickest occurrence in the middle of the Strait. As the cause and precise nature of this discontinuity is unknown, a bedrock foundation would be preferable. In either case, geotechnical investigation will be required at each caisson site, to determine the competence of foundation materials, as bedrock surfaces may be weathered, and have diminished bearing capacity.

Seismic Risk

Seismic ground motion may threaten the structure indirectly through mobilization of unconsolidated seabed materials which can move down slope as a turbidity flow, and directly by shaking the structure.

The threat to the structure from erosion of the footings by turbidity flows is not considered serious, as fine sediments do not occur in significant thickness up slope from the proposed bridge alignment.

The direct risk to the structure from seismic ground acceleration has received only cursory treatment in the assessment documents. It is stated that the bridge will be designed according to the National Building Code of Canada. The standards in the Building Code are intended to apply to conventional buildings, rather than specialized structures such as bridges. To determine the design specifications applicable to a Northumberland Strait bridge, the successful applicant should use design standards equivalent to the U.S. Applied Technology Council Standard ATC-6. In applying this standard the designers should use values for seismic ground motion obtained from the CSA Standard for Bridge Design, which is referenced as CAN/CSA-S6-88.

References:

Fader, G.B.J. 1988. Cruise Report 88-018(D), Phase 6/7, M.V. Navicula, Northumberland Strait, July 8-23, 1988: Atlantic Geisciences Centre, Geological Survey of Canada, Bedford Institute of Oceanography.

Fader, G.B.J. and Pecore, S., 1989. Surficial Geology of the Abegweit Passage Area of Northumberland Strait, Gulf of St. Lawrence. Geological Survey of Canada Open File #2087.

BRIEF PRESENTED

TO

ENVIRONMENTAL ASSESSMENT REVIEW PANEL

AS PART OF

FINAL PUBLIC HEARINGS

BY

Mary M. McGeoghegan

March 28, 1990

Mr. Chairman, Members of the Panel, and Public Works Representatives,

Many of the concerns dealing with the impacts of the fixed link on the fishery have been repeated often in the past 2 weeks. I think the majority of these concerns have been stated publicly for the record, and without any doubt the concerns of fishermen have not been quieted by this process. There are still too many unanswered questions regarding the environmental effects on the fishery. The only sure thing is that this project is not environmentally "benign". Those who believe there will be minimal impact are being much too simplistic and naive.

Public Works has repeatedly said that one of the criteria for the project is that the environmental impact "be at an acceptable level". How do you determine when negative impacts are at such a level? Is it acceptable, for example, to risk polluting an area known as a 'nursery' for fish stock? Being the mother of 7 childern, I am quite aware of what a nursery is. It's hopefully a safe place, undisturbed by noise, a place of rest and care and a clean place to be fed in. Now, if construction starts on a fixed link in the middle of a visible lobster, scallop, and herring area, what kind of nursery will they have? In my opinion, not one capabale of supporting and raising strong, healthy young to maturity.

In the past week I have reviewed everything I had regarding this project. Some of the information has improved over the four years, but one thing that has stayed consistent is that the "experts" really do not know for sure what makes the Northumberland Strait "tick", nor do they know what the reaction of it will be with a fixed link across it. In his cover letter on an overview of environmental effects submitted in January 1986 to the Urban Transportation Developement Corporation, Owen Washburn states: "The landing of lobster from Northumberland Strait comprises some 25% of the total Canadian landings. The biological processes which support this fishery are poorly understood but appear to rely on water movements through Northumberland Strait for maintenance of the stocks. Any interference with the area poses a serious threat to the fishery in the area as well as potentially endangering the fishing areas outside the Strait.". That statement seems to be minimized in current studies - no one seems to take the possibility of this having an effect, even outside the immediate crossing area, very seriously. If the fishery is severely changed as a result of a crossing, how are you going to put boundaries on who gets compensated? Fishermen don't want compensation, they just want to be able to fish.

Although Public Works and its consultants have made a study of bridges world - wide, this project for the Northumberland Strait is unique and basically an experiment. In their literature search of bridges, Public Works looked at crossings as small as 110 m and as long as 25 km, which included bridges and causeways. Some of these bridges didn't even have environmental studies done. Some were started in 1970 and haven't been completed yet. The Japanese bridge was started in 1976, spans 10 kms, and won't be complete until the year 2000. Construction time for the Northumberland Strait is expected to be only 5 years. Comparatively I would think our weather here is more severe than Japan's. What will the fishermen do if this project stretches from 5 years to 25 years? Also according to your reports, the Japanese fishing industry has been 'affected by oil pollution and overall deterioration of the Inland Sea. Materials released in industrial and domestic waste have increased the chemical oxygen demand to an unacceptable level.' In Scandinavia the Storebaelt Link is being built in spite of objections by fishermen there. They stand to loose their Cod fishery as a result of reduced salinity in the Baltic Sea caused by their fixed crossing. The total Danish loss from both fishing and processing industries is estimated at 100 million Krone per year. Can P.E.I. afford such a loss to occur to its fishing and processing industries? Proponents are concerned about jobs, does it make any sense to destroy ones already in place, and creating more unemployment, for just the possibility of increased employment? Fishing is also not just a job, it is a way of life, a culture all its own.

I have searched Public Works documents, DFO papers, and consultant reports, there is one aspect no one has touched on yet in any of the studies. It concerns the effects of Noise Pollution on fish and all marine life. The possibility of this as a serious concern first came to light after reading an article in the June 1989 issue of National Fishermen. The article is about a citizen's group concerned about Mobile oil drilling off of North Carolina. To put this into perspective for us here, the driling and dredging used by oil rigs will be similar to that used to put in bridge piers in the Strait. Among their concerns is:drilling "muds" average 1500 - 2000 tons for each well drilled and these are usually discharged into surrounding waters; lubricating oil and grease from drilling operations are significant; 25,000 barrels of oil and grease are dumped each year. Air pollution from one exploratory drilling rig, according to the Dept. of Interior, equals emissions from 7000 cars driving 50 miles. Multiply these figures by the number of piers to be drilled and we have a major pollution problem to deal with.

This same article goes on to mention the work done by Dr. Arthur Myrberg of the School of Marine and Atmospheric Science, University of Miami. In this article he is quoted as saying that, '...persistent noise from underwater construction, oil drilling and oil tankers will drive fish from a place for good and discourage other fish from coming near.'. The possibilities of all this bothered me so I contacted Dr. Myrberg in Miami, on the telephone. For over an half hour we discussed his studies and its implications on this project. Dr. Myrberg has spent 20 years studying ocean noise and how it affects fish. In 1988 he was specifically asked by a World Symposium on Noise pollution to do a study of the effects of man - made noise on fish. That study will be coming out in print within the next month in the journal ENVIRONMENT INTERNATIONAL. I have already ordered a copy of it through the UPEI library. Dr. Myrberg said that we have good reason to be concerned about the construction of a fixed link here. We discussed the types of fish in the Northumberland Strait. As far as lobsters go, the crustacean he has most studied is the shrimp. Both being crustacean, they would react similarily and he said shrimp have a lot of problems dealing with noise. He was most concerned with the effects it would have on the herring fishery. Herring have a very unique hearing system, made up of a two part system that is very easily destroyed by unnatural noises. Unlike humans whose hearing may recover after going to a loud rock concert, the hearing apparatus of herring NEVER recovers once destroyed. Hearing in fish affects all their responses for schooling, mating, and spawning. It all depends on sound. The Northumberland Strait is not only a nursery but also a major migratory area as pointed out in previous studies. Now if herring and other schools of fish have their hearing affected resulting in an inabiltiy to school or spawn it is going to certainly affect the system far outside the immediate construction area. This implies serious consequences for the Northumberland Strait Fishery and perhaps even affect the lucrative herring fishery off of New Brunswick.

The infomation is available, please get it and study it. I was able to get at the UPEI library a compilation of studies done called HEARING AND SOUND COMMUNICATION IN FISHES published in 1981. Included in it is a study by Dr. Myrberg on sound communication in fish. There is also two studies done by Dr. John Blaxter of Dunstaffagne Marine Research Laboratory in Scottland. Dr. Myrberg had referred me to Dr. Blaxter's work because of his special work in the hearing systems of herring. Dr. Myrberg's work on noise pollution is expected to create quite a stir in the oil drilling industry.

I did not intend my presentation to be so long. I am by no means a scientist, but I can read and so far what I have read disturbs me. For the sake of the future of the fishery, nothing should be left to assumptions or possibilities. To help fishermen and their organiztions look into all aspects of this project on their livelihood, they should have been allowed 'interveener' funding to do their own studies. The federal government recently announced that it gave the native people in Labrador/Quebec $200,000 to participate in public hearings there regarding the low level flights over their land. Some funding should have been allowed here also. Fishermen should be able to search out information that is required without having personal expenses involved. Certainly the proponent has had unlimited access to fund their reports.

Thank you for your time and energy spent throughout this process.

REFERNCES CITIED

Arthur A. Myrberg, Jr.

School of Marine and Atmospheric Science
University of Miami
4600 Rickenbacker Causeway
Miami, Florida 33149

John H.S. Blaxter

Scottish Marine Biological Assoc.
Dunstaffnage Marine Research Lab
P.O. Box 3
Oban, Argyll PA34AD Scotland

June 1989, NATIONAL FISHERMAN

Hearing and Sound Communication in Fishes.

Citizens fight Mobil's plan for drilling off Outer Banks

By Tom Mason

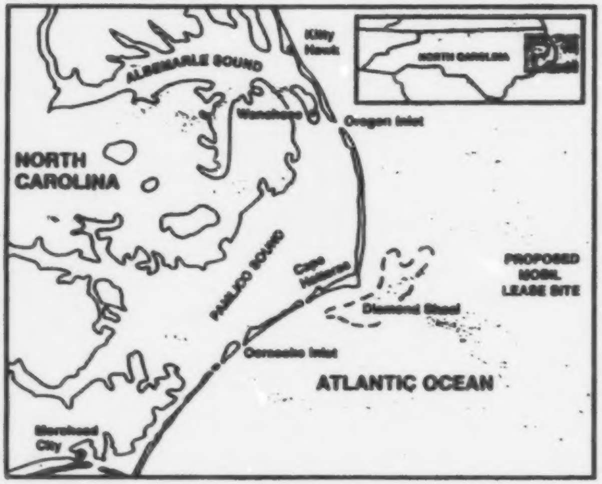
It was as if nature was sending a message by the freakish 60-knot blizzard that hit North Carolina's Outer Banks on Feb. 24. The next day, Mobil Oil and the federal government's Minerals Management Service (MMS) would meet in Manteo, N.C., and once again try to allay local fears that Mobil has not adequately considered the environment in its plans.

Mobil paid the federal government $200 million almost a decade ago for drilling rights off the Outer Banks. Now, with partners Marathon and Amerada Hess, Mobil plans to spend another $25 million on an exploratory well, 47 miles northeast of Cape Hatteras. The storm that the plan has raised locally among residents equals and surpasses the weather here, in a place the National Oceanic and Atmospheric Administration calls a "high energy environment" because of its active weather systems.

Local fishermen put it more bluntly: "This ain't the Gulf of Mexico."

At the place where Hatteras Island turns sharply from north to west, a place known as The Point, lies Diamond Shoal, stretching a killer finger into the Graveyard of the Atlantic where bones of 1,000 ships lie. Here, the Gulf Stream divides from the continental shelf and meets the cold water swept from Labrador. Under its treacherous surface, Mobil hopes to find gas and perhaps "liquid hydrocarbons," otherwise known as oil.

Part of the problem is the oil company's unwillingness to call oil "oil," or answer local concerns about long-term environmental degradation. Another is that MMS, which leases offshore drilling rights, is also responsible for enforcing the regulations governing drilling activities. The fox in the henhouse as guard does nothing to reassure residents, who depend upon fishing or tourism for their livelihoods.



East of Hatteras Island, the Gulf Stream divides from the continental shelf and meets the cold water from Labrador, producing treacherous and unpredictable eddies and currents. It's here that Mobil Oil plans to drill an exploratory well for natural gas and oil.

EIS Called Inadequate

At the center of the controversy is the Environmental Impact Statement (EIS) prepared by MMS in 1981. Opponents to the project say that report is inadequate and are calling for another study. They say the original EIS does not take into account the hostile weather, unpredictable currents and depths (up to 3,100') the project will face off Diamond Shoal.

Linda Mizelle, who heads the local citizen's group LegaSea, says, "No matter how technologically advanced Mobil is perceived to be, continuing to press this issue without the most accurate and concise information, which would only be available if a new EIS is prepared, is premature and irresponsible."

Mizelle points to several points of information provided by MMS to strengthen her argument:

- Major spills of over 1,000 barrels or more occurred 21 times on the outer continental shelf since 1964 as a result of drilling and production operations.
- Drilling "muds" average 1,500-2,000 tons for each well drilled and are loaded with cuttings and heavy metals such as lead. These muds are usually discharged into surrounding waters.
- Lubricating oil and grease from drilling operations are significant; 25,000 barrels of oil and grease are dumped into Gulf waters each year, which is permitted by MMS.
- Air pollution from one exploratory drilling rig, according to the U.S. Department of Interior, equals emissions from 7,000 cars driving 50 miles.

To compound those problems are the peculiarities of the currents off Hatteras Island. Those currents are only now beginning

(Continued on Page 48)

Mobil lease

(Continued from Page 31)

to be understood. New evidence, developed since the 1981 EIS, emphasizes the power and unpredictable nature of ocean eddies and currents connected with the Gulf Stream. "The currents in this region are 10 times as strong as the currents anywhere else off our coast," says oceanographer Leonard Pietrafesa. Satellite images of the Gulf Stream show it resembles a vibrating piece of string, he says.

When conditions are right, a powerful stray current, known as a frontal eddy, may veer off from the string, reverse direction and move ashore. That happened in 1987, bringing with it North Carolina's first experience with red tide. The episode decimated the shellfish industry and cost millions in lost revenue when people stopped eating finfish as well, in the mistaken belief that fish were poisoned also.

Mizelle fears the gunk, goo and garbage from offshore drilling would not only kill the lucrative fishing grounds off Diamond Shoal, but could wash ashore to similarly damage both the inshore fishery and the area's booming tourist industry.

"Obviously," says Mizelle, "Dare County and its citizens stand to lose the most, with little, if anything, to gain."

Another LegaSea volunteer, Mike McOwen, says, "It's like putting a factory in the middle of the Grand Canyon; it's a wilderness area."

The Valdez Spill

Michael Scott owns Scott Boatyard in Buxton, which serves commercial fishermen. He says, "Everyone here is concerned and totally against the drilling. There are 'No Offshore Drilling' bumper stickers everywhere. And after the Exxon fiasco in Alaska, all of our politicians have gone 100% against the project."

Deborah Wells, chairman of the Ocracoke Residents Against Oil and Gas Exploration, says, "The Exxon spill simply shows that there is no cleanup possible of a major spill. The logistics are such that all of the incredible damage has been done before the reaction begins. If that were to happen on the Outer Banks, this entire area would be a long-term economic disaster area the likes of which we've not seen since the Great Depression."

Other factors related to offshore drilling can also affect local fisheries. [redacted]

Fishermen and environmentalists have been joined in their fight by state politicians. Gov. James G. Martin is demanding that a new EIS be prepared before drilling takes place. Martin is on record as saying that without the new study, he will take legal action to prevent drilling.

North Carolina Rep. Walter B. Jones believes federal laws such as the Environmental Policy Act can be used to curtail Mobil's actions. "Under the federal Coastal Zone Management Act, the state also has further options to affect the outcome of Mobil's proposal," he says.

There is, however, one group of fishermen lending some support to the drilling project. Based in Wanchese Seafood Industrial Park, this group is dependent on the vagaries of treacherous Oregon Inlet for access to offshore grounds. According to boatyard owner Michael Scott, the group's support stems more from the expectation that Mobil would have to help dredge the inlet than from any fondness for oil drilling.

In April, the issue was at a standstill with the state's governor and citizens adamant in their call for a new EIS. The MMS says a full study is not necessary but further information is needed. When that information is gathered, it may be enough to condemn the project.

As veteran Ocracoke fisherman Wayne Irbrecht says, "If the politicians allow drilling off the Outer Banks, it will be their most monumental screw-up."

CONSTRUCTION ASSOCIATION OF NEW BRUNSWICK INC.
P.O. Box 1282 — Fredericton, New Brunswick — Telephone (506) 459-5770 — E3B 5C8

March 29, 1990

Dr. David H. Barnes
Chairman, Federal Environmental
Assessment Panel
Holman Building, 2nd. Floor
25 University Avenue
Charlottetown, P.E.I.

Dear Dr. Barnes:

The Executive and Board of Directors of the Construction Association of New Brunswick have instructed me to make abundantly clear their wholehearted endorsement of the Fixed Link Project.

While I have not spoken directly with more than about 10% of the membership, to my knowledge there has not been a single member who indicated anything negative about the principle of building a Fixed Link to the Island. On the contrary, there is understandable impatience to learn that all of the many legitimate concerns have been satisfactorily addressed, to hear that the successful developer has been selected, and to see that the physical work is finally underway.

At the same time, the CANB membership of over 450 New Brunswick firms, covering virtually all construction trades, is deeply concerned individually and collectively that if and when the Fixed Link to Prince Edward Island does go ahead, the local and regional supply of expertise and skilled labour will be fully utilized. We are convinced, after very careful consideration, that the breadth and depth of resources available for this project, both from within New Brunswick and the broader regional base, can effectively provide the vast bulk of the requirements.

I must underline our strongly-held belief that construction of the Fixed Link Project will strengthen the infrastructure of our Region, will help realize more of its potential, and will result in long-term prosperity for Atlantic Canada.

It is our hope that your long and arduous hearings and deliberations will conclude with positive recommendations for the Project, which in turn will lead to greater preparedness for the Free Trade era of the near and later future.

Sincerely,

B.H. Daniel

Bruce H. Daniel, CAE
Executive Director

Affiliated with Canadian Construction Association — Affiliee à l'association Canadienne de la Construction

THE NORTHUMBERLAND STRAIT CROSSING
ENVIRONMENTAL ASSESSMENT REVIEW

A SUBMISSION BY

THE PRINCE EDWARD ISLAND RESTAURANT
AND FOOD SERVICES ASSOCIATION

March 29, 1990

Mr. Chairman, Members of the Panel:

I would like to thank you for this opportunity to come and publicly present the opinions of the members of the Prince Edward Island Restaurant and Food Services Association regarding the proposed fixed crossing of the Northumberland Strait.

By way of information, our Association represents 80 members in this province including approximately 100 establishments. Our membership includes fast food outlets, institutional facilities, family restaurants and fine dining establishments. As an association we are a major player in the tourism industry of Prince Edward Island. Our Prince Edward Island Association is also affiliated with the Canadian Restaurant and Food Services Association.

Mr. Chairman and Members of the Panel. The Prince Edward Island Restaurant and Food Services Association is on record as supporting the construction of a permanent fixed crossing of Northumberland Strait between Prince Edward Island and New Brunswick. A fixed crossing is now vital to the economic survival of Prince Edward Island. One only need to follow the news in our newspapers and on radio and television for just one day to realize the problems that are being faced by the people in this province and in Atalntic Canada as a whole in a battered economy. In the past two years there have been massive job lay-offs and losses due to cuts in CN and Via Rail, fish processing plant closures, scaling down of defence establishments in preparation of the outright closing of some bases, such as CFB Summerside. All of these factors and others such as changes to the Unemployment Insurance System, higher and newer taxes, cuts in federal spending in all provinces have placed a very heavy economic burden on Prince Edward Island and the whole Atlantic Region.

In Prince Edward Island we have the highest unemployment rate in Canada, according to the latest figures from Statistics Canada, a very high cost of living and the lowest per capita income in Canada. Many people in this province say there is nothing we can do to change this situation. Our association along with other associations, groups and forward thinking individuals know that something CAN and MUST be done and this project before us is just the type of development needed to kick start the economic engine in Atlantic Canada and getting us on the road to improving our situation while not having to depend on the provincial or federal governments for hand-outs.

One immediate benefit from this project will be jobs. Jobs created in the construction phase of the project. Jobs created in manufacturing and services supplying the project. Jobs created throughout the whole economy as the dollars filter through the system.

Job creation is a major concern of our association. The restaurant and food services sectorof our economy is very labour intensive. As a matter of fact, to put the labour situation in its proper perspective in our industry, depending on the type of operation, labour costs represent between 15 and 35 per cent of gross sales.

As you well know, if this project goes ahead, tourist traffic to Prince Edward Island is expected to increase dramatically. This comes from the studies that have been completed for this project. If this is indeed the case our industry is prepared and well able to absorb the increase. This will lead directly to more full time permanent jobs in our sector of the economy and ultimately will create a better way of life for all of us.

I would like to pojnt out to you ladies and gentlemen of the panel a fact of life in our business at the present time. In the off-season, which in Prince Edward Island can be up to eight months, about 60 per cent of the restaurants in the province operate at about 50 per cent of capacity. This makes for a very long, hard winter for many operators. Our Association feels that with the fixed crossing, the off-season may be shortened and visitors will come to our province at other times of the year rather than just summer. Development of packages for the fall, winter and spring would be much easier to sell to prospective visitors and having them come in the so-called off-season would be a major boost to the total provincial economy.

The Prince Edward Island Restaurant and Food Services Association sees another major benefit of a fixed crossing...a reliable, safe, efficient and cost effective transportation system. Transportation costs are a major factor in the pricing policies of all Island industries whether it be manufacturing, processing, retail trade or even restaurants and food services. Our association members purchase as much as possible locally, however there are products that are just not available in Prince Edward Island and these must be purchased elsewhere and imported to the province. The added cost of transportation of these products to this province are passed on to the consumer and are therefore reflected in higher menu prices at the various restaurants in the province. The transportation costs mentioned here are documented in a submission by the Atlantic Provinces Trucking Association to this panel and are based on a study undertaken in February of this year by the Atlantic Provinces Transportation Commission. These added costs make it very difficult for Prince Edward Island to compete with other areas for the vacation dollar. Here again a fixed crossing would help to alleviate some of these high costs.

In any project of this magnitude there are going to be some risks involved. The risks involved in this project are with the environment and must be mitigated as much as possible to avoid any long-term damage to our physical environment, the fishery and wild life habitat.

The studies that have been carried out to date on this project at the request of both Public Works Canada and this panel itself provide adequate information on the effects a fixed crossing would have on the environment. It must be remembered by all concerned that this environmental assessment review being carried out at this time is based on a concept only and not on an actual proposed project. This means that assumptions have to be made and the questions dealt with as assumptions only, not on scientific based facts. There are no complete answers to all of the questions under this review nor indeed would there ever be complete answers even with a hard project proposal.

We must all remember that our imperfect world offers no guarantees. This project is not perfect and there is going to be some disruption to the fishery and to the environment. The three companies whose proposals are still on the table as it were, are well aware of the problems that could be encountered in this project. The original call for proposals laid down the criteria for the project and an environmental management plan was to be included in all proposals. This has obviously been taken care of in the three proposals still in the competition for the project. It is time the experts who conceived the project, conducted the studies, evaluated the proposals and put their professional reputations on the line were given a vote of confidence for their efforts. They would not recommend a shoddy project. They have a wealth of world-class experience in their chosen fields and we must have some faith in their findings. We feel this project has been more than adequately studied to allow you, the members of this panel to reach a decision.

As you well know there are those in our society who oppose this project. Their opposition is based on emotionalism and the fear of the unknown and the fear of change. They have no hard scientific facts or data to back up their opposition other than what is termed a "gut feeling" that this project is all wrong for the majority of people in this province. May we remind everyone that the people of Prince Edward Island have spoken on this issue at the ballot box with a 60% vote in favor of a fixed crossing. Do we not live in a democracy where the majority rules? Are the wishes of the majority to be ignored?

The time has come for decision making. Decision making based on the facts and the knowledge available dealing with the areas of concern in this project. There is no room for emotionalism in this decision. The decision to proceed with this project or not to proceed is going to affect the lives of generations yet unborn.

We have an opportunity to move forward into the next century with the rest of the world and the hope for a better way of life socially and economically for everyone in this province. Are we going to pass up this opportunity because we cannot be guaranteed that a fixed crossing is not going to disrupt our current way of life? Those persons who think that kind of guarantee is available in today's changing world are living in a fool's paradise. Life just does not work that way. There are no guarantees in life. If people had not taken risks in the past we would not be enjoying the standard of living we enjoy today. Man must [illegible] progress or regress. He cannot stand still and live in isolation from the rest of the world. If we are to survive as an economic unit in Canada, we must move forward and be progressive. For Prince Edward Island progress is available now with the construction of a permanent fixed crossing to the mainland.

The Prince Edward Island Restaurant and Food Services Association asks you, the members of this panel to recommend the decision to proceed with this project. That decision will give a much needed boost to the people of Prince Edward Island and Atlantic Canada at a time when a major economic boost is sorely needed.

Thank you for this opportunity.

A SUBMISSION
TO
THE FEDERAL ENVIRONMENTAL ASSESSMENT
REVIEW PANEL REVIEWING THE
NORTHUMBERLAND STRAIT CROSSING PROJECT
DR. DAVID H. BARNES, CHAIRMAN
PRESENTED BY
THE CONSTRUCTION ASSOCIATION OF P.E.I.
MARCH 30, 1990
CHARLOTTETOWN, P.E.I.

INTRODUCTION

The Construction Association of Prince Edward Island is a non-profit organization incorporated under the laws of Prince Edward Island on January 24, 1974 with its Head Office in Charlottetown, P.E.I. The Association has some 230 members from all areas of Prince Edward Island and would include some members from neighboring provinces. The Construction Association of Prince Edward Island represents General Contractors, Trade Contractors, Suppliers, and Homebuilders. The object of the Construction Association is to promote the Construction Industry in all its facets in the Province of Prince Edward Island.

The Construction Industry is one of the largest industries in Canada and employs directly in the industry some 650,000 people with another 1.5 million people employed indirectly in the industry. In Prince Edward Island, Statistics Canada reports that the dollar value of the Construction Industry in 1989 was 336 million dollars which makes the Construction Industry one of the largest total dollar value industries in our province and it is this industry that we represent with our brief here today.

You can see that the views that we express are those of a Group or Sector that represents a major part of the Prince Edward Island economy. The position of the Construction Association of Prince Edward Island, as we have advised in the past, is that we

...\2

favor the construction of a Fixed Link. This decision was not taken lightly by our Association or arrived at arbitrarily.

Some four years ago our Association had its first meeting to review with its members their thoughts and opinions on the Fixed Link. The results of this meeting was the formation of a panel for a general meeting that would review the effect of a Fixed Link on the people of Prince Edward Island and its industries. This panel was made up of representatives of the Transportation, Tourism, and the Agriculture Sectors. One of the first tasks of these Sector Representatives was to review this subject with their Associations and then formulate a position and report back to the panel.

When this meeting was held, our members listened to the views of each panelist representing the various Sectors outlining their Sector's opinions. The concept was then reviewed by our members at a general meeting and a motion was approved whereby the Construction Association of Prince Edward Island would support the concept of the construction of a Fixed Link between Prince Edward Island and New Brunswick.

We then advised both the Government and the Media of our position. Our concern or interest did not stop here. Our Association then invited the parties who had expressed an interest in the construction of the Fixed Link to meet with our

...\3

members to discuss, among other things, how the Construction Industry of P.E.I. could be of assistance to the developers while at the same time allowing the developers to outline their proposals to us. At this time, we found nothing in these presentations that adversely affected our thinking or our decision on a Fixed Link.

We have reviewed the various studies put forth on each aspect of the Fixed Crossing and have responded with briefs to the various public hearings held on the Fixed Link, and we have also reviewed the latest supplement of the bridge concept assessment.

FINDINGS

It is our opinion, after having reviewed thoroughly the information presented that it is now time to proceed to the remaining stages of the construction of a Fixed Link.

Although we cannot determine with certainty the exact amount of environmental and social impact this project will have on this area, we firmly believe that the benefits derived from this project will far outweigh any negative impacts of this project.

In order to determine the amount of positive and negative impacts that this project may have on this area it is important that both the positive and negative impacts be studied.

...\4

To date, a considerable amount of discussion and study has centered around the negative impacts of constructing a Fixed Link. We therefore, wish to submit to you some of the positive impacts arising from this project as we see them.

SHORT TERM BENEFITS

The construction of a Fixed Link between Prince Edward Island and New Brunswick would:

1. Increase the growth of the Construction Industry by 7000 person years of direct construction bringing over 200 million dollars in wages to the Fixed Link workers and would create another 100 million dollars of indirect wages for those workers who would not be directly involved in the construction of the on site Fixed Link construction.

2. It would provide training of workers and the acquisition of new skills for these workers for a more skilled and trained work force. e.g. Specific Trades Training, Updated Communication Skills etc.

3. The supply of services and materials to this Fixed Link project would greatly enhance the economy of the area.

4. Construction activities would be created for all segments of the industry to provide administrative offices, camp sites, temporary services, storage buildings, etc.

.../5

LONG TERM BENEFITS

The long term benefits of the construction of a Fixed Link between P.E.I. and New Brunswick would:

1. Effectively double the area which contractors from P.E.I. or surrounding areas could service, thereby creating a more competitive industry by providing the buyer of construction with a better value for his construction purchases.
2. Create a permanent employment for upwards of 100 persons or maybe even more to administer, maintain, and service the Fixed Link during the lifetime of the link.
3. Provide a substantial saving to many industries, including agriculture, tourism, fisheries, and transportation while at the same time provide them with an opportunity to expand their industries.

We are very conscious as Islanders of our present position on the Fixed Link or lack of it. Since late in the 1880's, it has been a bargaining chip with the Federal Governments to secure additional financial assistance or government programs. Should our province now indicate that we do not want the Fixed Link, we will not only loose a Fixed Link but we will also loose the bargaining power with our Federal Government by turning down this opportunity.

...\6

CONCLUSION

We believe, we have reviewed the Fixed Link Project not only as a Construction Industry with a vested interest, but as Corporate Citizens concerned with the future of our province both economically and environmentally, and certainly with a view to what it would mean to Prince Edward Islanders in our time and in the future.

Surely, this is the time to proceed. It is our feeling in summation that all issues have been adequately addressed and the panel should proceed with its deliberations and we would urge the panel to recommend that the construction of a Fixed Link between the provinces of Prince Edward Island and New Brunswick proceed as quickly as possible.

Respectfully submitted,

CONSTRUCTION ASSOCIATION OF
PRINCE EDWARD ISLAND

Francis Reid

Francis Reid
General Manager

FR/jm

Brief to the Environmental Assessment Panel Reviewing the Northumberland Strait Crossing Project

March 29, 1990

Submitted by:

Dan R. Jenkins, C.A.
P.O. Box 354
Charlottetown, P.E.I.
C1A 7K7

566-1207

Mr. Chairman and Panel Members:

I am a native Islander and presently the owner and manager of a transportation and trucking company in Charlottetown. I am appearing before you today as a citizen concerned about the future of Prince Edward Island. I trust information provided by Public Works Canada on the project thus far, but would like to comment on a number of issues.

Environment

We have all enjoyed the pristine beauty and functionality of our Island, and had the opportunity to contrast this to other areas which have suffered from poorly managed development. The importance of preserving our environment cannot be underestimated. I encourage the federal and provincial governments to carefully evaluate, monitor and control all environmental aspects during construction and utilization of the crossing, if in fact the project proceeds. This would of course require a detailed environmental impact study based on the specific engineering and construction methods to be employed by the enterprise awarded the project. This study should include not only the bridge structure itself, but all supporting infrastructures, required by or brought about by the link (eg. access roads, highways, toll stations, maintenance equipment, etc.).

Socio-Economic Impacts

Prince Edward Island has not seen any significant improvement in it's standard of living for some time now. We are still considered a "have-not" province and suffer from the second highest unemployment rate in the country. If a fixed crossing is constructed, economic development will likely come initially from enhancements to the primary sectors of agriculture and fisheries through expanded processing and packaging. A fixed link would encourage mobility, inter-provincial trade, education and the exchange of resources and markets.

Although there are many factors affecting economic development, I believe the largest retardant to the Island's economic development has been the lack of an efficient and reliable link to mainland markets, suppliers and potential users of Island products and services. In the longer term, a fixed crossing would greatly encourage development of the service sector, the sector which I personally feel will see the most growth in the next 20 years.

A significant result of a fixed crossing will be additional volume on our highway systems. This situation has been magnified as a result of rail abandonment and increased truck traffic which has resulted. I feel a fixed crossing would be consistent with and complimentary to the long term development of our highway systems.

It is quite clear that a fixed crossing would cause an increase in the number of visitors to the Island, I believe this increase will be less significant than most predictions I have heard. Prince Edward Island will never be a thoroughfare. Prince Edward Island has and always will remain a destination, not just a "stop along the road". Practical geographical impediments to large scale increases in visitors remain.

In exchange for the benefits a fixed crossing will provide, I feel Islanders must be prepared to accept additional planning controls to ensure development is appropriate, sustainable and environmentally sound.

I like many of my peers have travelled, studied and worked away from Prince Edward Island for some time. I have been fortunate enough to be able to return to Prince Edward Island to a productive and enjoyable business in the location of my choice - "home". Many more of my peers however, have not been so fortunate. Despite their best efforts, the majority of my fellow high school graduates have not been able to return to Prince Edward Island to find employment in their chosen careers. This exodus of bright young minds is in my view, a highly underestimated and growing socio-economic problem. The Island's loss in this regard is some other province's (or country's) gain.

Potential Negative Impacts on the Fishery and Ferry Employees

The concerns of Northumberland Straight fisherman with regards to damage to their fishing grounds are understandable. However, given the factual information put forward, it would appear that any negative impacts would be short term. Some disruption is probable, but if managed properly, the disruption should not be significant. I do feel fisherman should be compensated for losses experienced (if in fact there are losses), but I do not feel this issue is of enough significance to justify holding up a project which would benefit all Islanders in many other ways (ie. gains which would be experienced in the transportation, manufacturing, processing and other sectors).

Employees of Marine Atlantic should be offered outplacement assistance and compensation packages through a federally funded, independent trust. It is always difficult to accept change as it relates to our livelihood, but I would encourage the employees of Marine Atlantic to look to the future and the prospect of jobs resulting from the economic development which I believe will follow the construction of a fixed crossing.

The Island Way of Life

Although difficult to define, all Islanders know what is meant by "the Island Way of Life". It is unique and should be nurtured. The Island Way of Life has grown from generations of tradition and history.

I feel the most significant threat to the Island Way of Life is not a fixed crossing, but the stress, family violence, alcohol and drug abuse which results from a lack of opportunity for Islanders to have meaningful, year round employment. I believe the most constructive action we could take at this time to protect the Island Way of Life is to proceed with this project, generate opportunity on Prince Edward Island, and restore the incentive for young Islanders to return or stay at home and develop our province into a productive and vibrant community.

Conclusion

In conclusion, I encourage the Panel to do what it sees fit to ensure this change is managed wisely. I encourage the Panel to do what it can to see that Islanders are given something to be proud of, a tool which we can use to aid us into a future of rational economic and social development. I support the fixed crossing project as a tool for ensuring Prince Edward Island continues to be a region of great people, great geography, and great opportunity.

Thank you and good luck with your report.

Yours very truly,

Dan R. Jenkins, C.A.

BRIEF

TO

THE ENVIRONMENTAL ASSESSMENT PANEL

REVIEWING THE NORTHUMBERLAND STRAIT CROSSING PROJECT

FROM

THE SOCIAL ACTION COMMISSION

MARCH 29, 1990 CHARLOTTETOWN HOTEL

INTRODUCTION

MR. CHAIRPERSON, MEMBERS OF THE SOCIAL ACTION COMMISSION EXPRESS OUR GRATITUDE TO YOU AND THE MEMBERS OF THE PANEL, FOR THIS OPPORTUNITY TO MAKE A BRIEF PRESENTATION OF OUR VIEWS ON THE NORTHUMBERLAND STRAIT CROSSING PROJECT.

IN JANUARY, 1988, THE SOCIAL ACTION COMMISSION ALONG WITH SEVERAL OTHER ISLAND GROUPS EXPRESSED CONCERN THAT THE PLEBISCITE ON THE FIXED LINK WAS PREMATURE. IT WAS A HURRIED VOTE WHICH FAILED TO ALLOW TIME AND RESOURCES FOR THE DEEP REFLECTION REQUIRED OF SUCH A PROJECT. ALMOST TWO YEARS AND $10 MILLION LATER, WE FIND THAT THE MOOD IS STILL HURRIED AND THAT A DECISION TO PROCEED WITH A FIXED LINK IS PREMATURE. FURTHER STUDIES HAVE BEEN CONDUCTED BUT THEY HAVE NOT SATISFIED OUR WORRIES ABOUT THE ENVIRONMENT, THE FISHERY, JOBS, LAND AND PRIVATIZATION. MANY SERIOUS QUESTIONS REMAIN UNANSWERED AND WE REALIZE THAT SOME OF THEM APPEAR TO BE UNANSWERABLE. IN SUCH A SITUATION, IT IS BEST TO MOVE FORWARD WITH THE MEANS OF TRANSPORTATION WHICH HAS PROVEN ITSELF OVER THE YEARS IN TERMS OF COST, JOBS, RELIABILITY AND FRIENDLINESS TO THE ENVIRONMENT.

THE ENVIRONMENT

THE UNCERTAINTY ABOUT THE ACCURACY OF RESEARCH CARRIED OUT BY PUBLIC WORKS CANADA ON CHANGES IN THE FISHERY IS A MAJOR CAUSE OF CONCERN. THE DEPARTMENT OF FISHERIES AND OCEANS HAS ADVISED THAT P.W.C.'S

> PREDICTIONS MUST BE VIEWED WITH CAUTION. THE RELATIONSHIPS ARE BASED ON EXPLORATORY ANALYSIS, AND THE UNDERLYING CAUSES IF ANY, REMAIN SPECULATIVE. THE POSSIBILITY CANNOT BE EXCLUDED THAT THE CORRELATIONS ARE SPURIOUS.

WHAT IS NEEDED ARE MORE CONCLUSIVE STUDIES IN RELATION TO THE EFFECT OF ICE/CLIMATE/FISHERY INTERACTION CAUSED BY THE CONSTRUCTION OF A BRIDGE, I.E., A FIRM FORECAST OF THE ACTUAL CONSEQUENCES. THERE IS NO WAY THAT WE COULD HAVE CONFIDENCE IN STUDIES WHICH LEAVE A "CHAIN OF UNCERTAINTIES WHICH INCREASE WITH EACH STEP". (P.E.I.F.A.). WE ALSO WONDER HOW LONG IT WOULD TAKE TO CLEAR UP THE UNCERTAINTIES. MANY EMINENT SCIENTISTS BELIEVE THAT SOME CYCLES IN NATURE ARE LONG TERM AND COULD BE UP TO TWENTY-FIVE YEARS DURATION. IN LIGHT

OF THIS AND THE IMPENDING GREENHOUSE EFFECT WE CAN ONLY PROCEED IF AN ENVIRONMENTAL IMPACT STUDY ANSWERS ALL OF THE QUESTIONS ASSOCIATED WITH ALL POSSIBLE SCENARIOS.

THE FISHERY

THE STUDIES HAVE NOT BEEN ABLE TO PROVE THAT THE VALUABLE NORTHUMBERLAND STRAIT FISHERY IS SAFE IF CONSTRUCTION OF A BRIDGE PROCEEDS. WE SHARE THE WORRY EXPRESSED BY THE PRINCE EDWARD ISLAND FISHERMEN'S ASSOCIATION THAT DEPARTMENT OF FISHERIES AND OCEANS SCIENTISTS POSSESS MUCH MORE SCIENTIFIC EXPERTISE ON THE MARINE ENVIRONMENT IN THE NORTHUMBERLAND STRAIT THAN THE P.W.C.'S CONSULTANTS, AND THAT THE D.F.O. CRITICISMS OF THE ENVIRONMENTAL STUDIES ARE THE ONES WHICH SHOULD BE FOLLOWED.

WE AGREE AS WELL WITH THE P.E.I.F.A.'S RESERVATIONS ABOUT THE DAMAGE A BRIDGE COULD CAUSE TO THE FISHERY. THE NORTHUMBERLAND STRAIT BETWEEN CAPE TORMENTINE AND CAP PELE IS A MAJOR SPRING SPAWNING GROUND FOR HERRING. IF CONSTRUCTION OF A BRIDGE CAUSES SILTATION, THE HERRING EGGS WHICH ARE LAID ON THE BOTTOM OR ON SEAWEED WOULD BE SMOTHERED. THIS COULD CAUSE EITHER LONG TERM OR SHORT

TERM DAMAGE TO THE FISHERY. THE COST OF AVOIDING THIS RISK, I.E., DELAYING CONSTRUCTION UNTIL AFTER MID JULY IN EACH SEASON WOULD BE A VERY EXPENSIVE ALTERNATIVE WHICH WOULD HAVE TO BE FACTORED INTO THE COST OF BRIDGE CONSTRUCTION. WE SUPPORT THE P.E.I.F.A.'S CONTENTION THAT EFFECTS ON MIGRATION OF FISH ARE OF MAJOR IMPORTANCE AND THAT THE STUDIES HAVE NOT DEALT EFFECTIVELY WITH THIS POINT. THE SAME IS TRUE OF THE EFFECT OF WINTER PRIMARY PRODUCTIVITY AND ITS ROLE AS A FEEDSTOCK FOR SPRING SECONDARY AND TERTIARY PRODUCTION. THERE ARE TOO MANY PREDICTIONS WHICH LACK A FIRMLY QUANTIFIABLE CAUSE LINKED TO A CLEAR-CUT EFFECT; FOR EXAMPLE, CHANGE IN ICE DYNAMICS INDUCED BY A BRIDGE.

THE BOTTOM LINE IS THAT THE NATURAL VARIABILITY IN THE ENVIRONMENT AND FISH LANDINGS IS SO GREAT THAT WE WON'T BE ABLE TO ATTRIBUTE ANY NEGATIVE DOWNTURN IN THE FISHERY TO ANY ONE PARTICULAR SOURCE INCLUDING THE PROPOSED LINK. IN OTHER WORDS, "IMPACTS OF PROPOSED BRIDGES ARE IMPOSSIBLE TO EVALUATE AT THIS TIME" (RICE ET AL AS QUOTED BY THE P.E.I.F.A., JAN. 29,1990).

IN REGARD TO A COMPENSATION PACKAGE FOR THE FISHERY, GIVEN THE SCARCITY OF FISH IN THE GULF OF ST. LAWRENCE, WE STRONGLY ADVISE THAT A HEALTHY LOBSTER, SCALLOP, HERRING AND MACKEREL FISHERY IS PRICELESS. ITS WELL-BEING IS OF PRIMARY IMPORTANCE. THE POSSIBLE DESTRUCTION WHICH A BRIDGE COULD CAUSE TO THE FISHERY WOULD HAVE TO BE SEEN IN TERMS OF FOOD SUPPLIES FOR FUTURE GENERATIONS AND NOT SIMPLY BY CALCULATING THE NUMBER OF FISHERS AND THEIR ANNUAL CATCH. FURTHERMORE, WE BELIEVE THAT IT WOULD BE DIFFICULT TO ASSURE FISHERS THAT THEY COULD EVEN CLAIM COMPENSATION GIVEN THE VARIABILITY IN ENVIRONMENT AND FISH LANDINGS.

JOBS

IT IS AN UNDISPUTED FACT THAT JOBS ARE THE BEST MECHANISM FOR REDISTRIBUTING WEALTH IN OUR SOCIETY. WE ARE DEEPLY CONCERNED THAT THE JOBS OF 670 WORKERS AT MARINE ATLANTIC WOULD BE LOST. FERRY WORKERS ESTIMATE THAT A JUST COMPENSATION PACKAGE WOULD COST $35 MILLION ANNUALLY. WHILE WE AGREE WITH THE CONCERNS OF THE FERRY WORKERS, WE WOULD ARGUE FURTHER THAT IN SPITE OF THE COMPENSATION PACKAGE, THE 670 JOBS WOULD STILL BE LOST IN THE LONG TERM. THIS WOULD BE A GREAT

BLOW NOT ONLY TO BORDEN BUT TO MOST OF PRINCE EDWARD ISLAND. THESE ARE SOME OF THE BETTER PAID JOBS AVAILABLE ON THE ISLAND, AND WORKERS COME FROM AS FAR AWAY AS KINGS COUNTY AND WEST PRINCE. THE DEVASTATING SOCIAL IMPACT OF UNEMPLOYMENT IS NEGATIVE PROOF THAT WORK, AND NOT JUST INCOME IS AN ESSENTIAL CONDITION OF WELL-BEING IN OUR SOCIETY.

IT IS DIFFICULT TO RELY ON P.W.C.'S PROMISE THAT IT WOULD WORK OUT A JUST COMPENSATION PACKAGE. DURING THE FREE TRADE DEBATE CANADIANS WERE PROMISED COMPENSATION PACKAGES TO WORKERS WHO WOULD LOSE THEIR JOBS AS A RESULT OF PLANT CLOSURES AND RELOCATIONS AS A FALL-OUT OF THE FREE TRADE AGREEMENT. BY MID-DECEMBER, 1989, THE CANADIAN LABOUR CONGRESS ESTIMATED THAT APPROXIMATELY 72,000 JOBS HAD BEEN LOST STRICTLY THROUGH PLANT CLOSURES. NO COMPENSATION HAS BEEN OFFERED TO THE EMPLOYEES. JOBS ON THE CONSTRUCTION SITE WILL BE SHORT TERM AND MOST OF THEM AS WELL AS THE SPINOFFS WILL PROBABLY BE ON THE NEW BRUNSWICK SIDE OF THE STRAIT.

THE QUESTION OF JOBS SHOULD CAUSE US TO REFLECT ON THE ETHICAL PRIORITY THAT IN A JUST ECONOMIC

ORDER, THE NEEDS OF THE POOR TAKE PRIORITY OVER THE WANTS OF THE RICH. THE STATE HAS A MORAL RESPONSIBILITY TO ENSURE THAT NATIONAL WEALTH IS RE-DISTRIBUTED THROUGH VARIOUS KINDS OF ECONOMIC AND SOCIAL POLICIES RATHER THAN THROUGH ONE MEGA PROJECT. THIS ETHICAL PRINCIPLE REQUIRES MUCH DEEPER REFLECTION WITH THE MOST ECONOMICALLY DISADVANTAGED WHO HAVE BEEN ABSENT IN THE FIXED LINK DEBATE. HUMAN LABOR AND THE BASIC RIGHTS OF WORKING PEOPLE TAKE PRIORITY OVER THE MAXIMIZATION OF PROFIT AND THE ACCUMULATION OF CAPITAL. THE STATE HAS A MORAL RESPONSIBILITY TO DEVELOP ECONOMIC STRATEGIES DESIGNED TO GENERATE FULL EMPLOYMENT AND MEANINGFUL JOBS.

PRIVATIZATION

ANOTHER POINT THAT CAUSES CONCERN IS THE SHIFT AWAY FROM GOVERNMENT OWNERSHIP OF THE MEANS OF TRANSPORTATION AND RESPONSIBILITY FOR THE TRAVELLING PUBLIC, TO THE PRIVATE SECTOR. COMMUNICATION WITH THE MAINLAND WAS GUARANTEED TO US BY THE FEDERAL CONSTITUTION. THIS PUBLIC SERVICE ALLOWED US TO CROSS THE STRAIT BY A LABOR INTENSIVE TRANSPORTATION SYSTEM. A FIXED, PRIVATIZED LINK LEAVES US ON OUR OWN AND REPRESENTS A CAPITAL INTENSIVE APPROACH TO TRANSPORTATION.

THE STATE HAS A MORAL RESPONSIBILITY TO ENSURE THAT CAPITAL, TECHNOLOGY AND RESOURCES ARE USED FOR THE COMMON GOOD. WE NEED TO ASK IF A FIXED LINK WHICH REMOVES GOVERNMENT RESPONSIBILITY FOR PEOPLE'S TRANSPORTATION NEEDS AND WHICH COULD HAVE A NEGATIVE EFFECT ON SUCH FINITE RESOURCES AS FISH, LAND AND OUR ENVIRONMENT IS REALLY IN THE INTEREST OF THE COMMON GOOD? WE REMAIN VERY CONCERNED ABOUT THE IMPACT OF A BRIDGE ON ISLAND LAND. BETWEEN 1973 AND 1988, 3,400 ACRES OF LAND WERE CONVERTED ANNUAL TO NON-RESIDENT OWNERSHIP. NON-RESIDENTS NOW OWN 11 PERCENT OF TOTAL ISLAND LAND. THIS IS ALREADY VERY SERIOUS. A FIXED LINK WOULD GREATLY INCREASE NON-RESIDENT DEMAND FOR LAND AND SPECULATORS WHO ARE CURRENTLY MAKING A BONANZA ON LAND FLIP-FLOPS WOULD HAVE A FIELD DAY IF A BRIDGE IS APPROVED. PRICES FOR SHORE FRONT LAND ARE WELL IN EXCESS OF $25,000.00 PER ACRE.

> IN THE COLLECTIVE MIND OF MODERN CIVILIZATION LAND IS INTERPRETED LARGELY IN THE LITERAL SENSE: A TOOL TO BE USED; A WILD, INHUMAN

> THING TO BE SUBDUED; AND A 'FUNCTIONAL COMMODITY' TO BE EXPLOITED FOR PROFIT. (OUR LEGACY IN LAND)

BEFORE APPROVING A FIXED LINK, WE NEED TO BE CERTAIN THAT PRINCE EDWARD ISLAND'S AGRICULTURE LAND IS RETAINED FOR AGRICULTURE. WE NEED TO KNOW MORE ABOUT THE NEGATIVE IMPACT OF TOURISM AND WE NEED GREATER COMMITMENT TO THE STEWARDSHIP OF OUR LAND.

CONCLUSION

THE SOLUTION TO THE DEBATE OVER THE FIXED LINK IS TO IMPROVE WHAT ALREADY WORKS WITH MINIMAL DAMAGE TO THE ENVIRONMENT, JOBS AND RESOURCES. THE ONE THING WE ARE SURE OF IS THAT THE CURRENT LABOUR INTENSIVE FERRY SERVICE WORKS AND THAT IT COULD BE VASTLY IMPROVED. THIS IS PROGRESS GIVEN THE PRIORITY WHICH THE MODERN WORLD HAS PLACED ON ENVIRONMENTAL PROTECTION. PROGRESS IN 1990 MEANS THAT THERE MUST BE "A FUNDAMENTAL CHANGE IN THE WORLD VIEW THAT PROGRESS CARVES THROUGH TECHNOLOGY AND INDUSTRIAL GROWTH. SOCIAL AND ECONOMIC SYSTEMS MUST BE BASED ON A NEW PHILOSOPHY OF RESPECT AND UNDERSTANDING OF THE NATURAL PROCESSES WHICH ENSURE OUR SURIVIVAL" (THE ECOLOGIST).

THOSE OF US WHO ARE FAMILIAR WITH THE FERRY SERVICE BETWEEN VANCOUVER ISLAND AND MAINLAND BRITISH COLUMBIA, CAN TESTIFY THAT THEIR SUPERIOR FERRY SYSTEM SERVES THE NEEDS OF THE MODERN CITIES OF VANCOUVER AND VICTORIA, IN ONE OF CANADA'S WEALTHIEST PROVINCES. PEOPLE IN A RUSH CAN PAY A SMALL FEE TO BE ASSURED A PLACE ON THE CROSSING OF THEIR CHOICE. PRINCE EDWARD ISLAND COULD HAVE SPECIAL FERRIES FOR TRUCKS AND THERE COULD BE LARGER FERRIES WITH IMPROVED SERVICE. MEGA PROJECTS WITH UNPROVEN RISK OF ENVIRONMENTAL DAMAGE ARE OBSOLETE IN THE 1990'S.

Volume

3

ENVIRONMENTAL ASSESSMENT PANEL
REVIEWING THE
NORTHUMBERLAND STRAIT CROSSING PROJECT

COMPILATION OF SUBMISSIONS RECEIVED PRIOR TO AND DURING FINAL PUBLIC HEARINGS HELD TO DISCUSS THE NORTHUMBERLAND STRAIT CROSSING PROJECT

VOLUME 3

APRIL 1990

VOLUME 3

TABLE OF CONTENTS

COMPILATION OF SUBMISSIONS RECEIVED PRIOR TO AND DURING FINAL PUBLIC HEARINGS HELD TO DISCUSS THE NORTHUMBERLAND STRAIT CROSSING PROJECT

1. Morley E. Pinsent, 8 pgs.
2. David Weale, 7 pgs.
3. Sharon Labchuk, 4 pgs.
4. Teresa Doyle, 9 pgs.
5. John Eldon Green, 12 pgs.
6. Fred L. Driscoll, 7 pgs.
7. John M. Mulligan, 5 pgs.
8. P.E.I. Real Estate Association - Earl Arsenault, 4 pgs.
9. Maurice B. Lodge, 22 pgs.
10. Bechtel Canada - R.W. Harmer, 2 pgs.
11. Islanders for a Better Tomorrow - Alan Holman, 36 pgs.
12. Leo Cheverie and Philip Brown, 8 pgs.
13. P.E.I. Council of Labour - Harold Dolan, 5 pgs.
14. Atlantic Provinces Trucking Association - Art Howard and Dale Elliott, 19 pgs.
15. P.E.I. Potato Processing Council - Vernon Campbell, 3 pgs.
16. P.E.I. Potato Marketing Commission - Stuart Affleck, 5 pgs.
17. P.E.I. Potato Producers Association - Peter Van Nieuwenhuyzen, 5 pgs.
18. Friends of the Island - Don Stewart, 10 pgs.
19. Katherine Dewar, 13 pgs.
20. United Brotherhood of Carpenters and Joiners of America, Local 1338 - Ron Davies, 6 pgs.
21. Nancy Murphy, 18 pgs.
22. Island Nature Trust - Dr. Lawson Drake, Barbara MacDonald, Diane Griffin, 5 pgs.
23. Daniel Schulman, 9 pgs.
24. Kevin Arsenault, 10 pgs.
25. Robert Heaney, 5 pgs.
26. Sally and Bill Robertson, 2 pgs.
27. Bayfield/Tormentine Fire Department - Philip Palmeter, 1 pg.
28. Maritime Fishermens Union, Local 4, David Harding, 3 pgs.
29. Scott Linkletter, 1 pg.
30. Merton Simpson, 1 pg.
31. Byron Lindsay, 5 pgs.
32. Parrsboro and Area Industrial Development Commission - Ralph Foster, 2 pgs.
33. Alan D. Samostie, 1 pg.
34. E.O. Classen, 7 pgs.
35. Hotel / Motel Group, 5 pgs.
36. Town of Borden, 3 pgs.
37. Rev. James Kelly, 3 pgs.
38. Anna Fraser, 4 pgs.
39. Robert Doucette, 5 pgs.
40. Henry Compton, 2 pgs.

A BRIEF PRESENTED TO THE
ENVIRONMENTAL ASSESSMENT PANEL
REVIEWING THE NORTHUMBERLAND STRAIT CROSSING PROJECT

EFFECTS ON THE ISLAND WAY OF LIFE

PRESENTED BY

[redacted]

SOUTH GRANVILLE
PRINCE EDWARD ISLAND

PRESENTED AT: CHARLOTTETOWN, PRINCE EDWARD ISLAND

MARCH 29, 1990

Good day Mr. Chairman and ladies and gentlemen of the Environmental Review Panel. I would like to thank you for the opportunity to comment on the proppposed fixed crossing of the Northumberland Strait and effects it might have on the "Island Way of Life".

My name is Morley Pinsent, I am a farmer and research consultant. My background and training is in the science of ecology but I am here today on my own behalf as a confirmed Islandophile.

Islands are special places. They have been recognized as unique in literature and legend since at least the time of Homer's Odyssey around 800 B.C. The geographical distinction that makes Islands unique is their physical separation from an adjacent larger land mass. So at the same time; an Island is precise, distinct and measurable and yet mysterious, different or set apart to those not of it. All this tends to be on a very human scale. As Milton Acorn pointed out in his poem, The Island, there is "no direction I couldn't walk to the wave-lined edge of home".

The physical separation combined with a humanly definable boundary makes any Island a place that influences considerably the people it rears or attracts. We are to a large extent moulded by our physical surroundings and a "home" which is definable and distinct from the rest of the world on a human scale is certain to influence one's way of life to a far different degree than a less defined mid-continental location.

I was born in the middle of the prairies some 1200 miles from the ocean and never set foot on an island until my fourteenth year. The distinction between people of the seemingly endless vast prairies and the confinement of an island, even a large one, was immediately apparent and has only been subsequently reinforced. In the twenty five years since leaving the prairies I have had the good fortune to work extensively on the Queen Charlotte Islands and to live permanently on Lasqueti

Island, Vancouver Island and Prince Edward Island and I can state with certainty that although there may not be the Island way of life, there is indeed an Island way of life distinct and unique from continental life. ~~Aspects of~~ An Island way of life has as a basis, a physical separation and humanly definable edge. A fixed link removes those basic criteria.

I was delighted to learn that the environmental assesment review panel had seen fit to include effects upon the Island way of life within its purview. After all, with the possible exception of the effects to the marine environment and fishery of Northumberland Strait, no other aspect will be more greatly effected by a fixed crossing than the human and social ecology of Prince Edward Island, i.e. the manner in which Islanders view themselves and live their lives.

My delight was tempered however upon delving into the crossing studies. This major concern of any group of people, how they go about their lives and how they perceive themselves; their "way of life", receives a notation as moderate to high risk within the socio-economic environment on page [3]23 of the "Bridge Concept Assessment" and a further two paragraphs of attention on page [4]8 of the same report!

These two paragraphs, without any supporting data at all, suggest on one hand that "Island-born natives have experienced the dynamic character of Island life...for these people the Island is no different than any other rural area in Canada, and must accept growth and change." While on the other hand "The Island lives on a small scale, in an environment perceived to be clean and of special beauty. It retains a cherished sense of isolation from major social problems and movements and many people do not want to encourage change or extensive growth." That's it! No data, no conclusions, no recommendations. Even a hint of the term is studiously avoided in the supplement to the "Bridge Concept Assessment". In the two principle summary assessment documents for the proposed crossing, the effect of life on Prince Edward Island, how it is to be lived and perceived by residents, is treated with condescension and lightness to the point of flippancy.

Fortunately, the "Preliminary Social Impact Assessment" of August 1987. However, in spite of the title, it is in fact a socio-economic review which, frankly, deals in far greater depth with the "economic" than the "socio"! I would ask your indulgence while I quickly review some major points from this assessment.

In the first instance, the report points out that it is not possible to compare this proposal with other crossing projects that have been undertaken principally because "There are simply no other projects that are comparable..."

The report points out that the isolation imposed by the Northumberland Strait has allowed Islanders to pursue their desire for self-government. What could be more an aspect of the Island way of life than the autonomy allowed by full fledged provincehood? The assessment states: "If it can readily be asserted that had it not been an island, Prince Edward Island would not have been self-governing, can it now be argued that if Prince Edward Island ceases to be an Island, there is no longer a need for it to be self-governing?" I think it can be argued; particularily in view of the unsettled nature of Canadian Constitutional politics of today. The fixed crossing is thus seen as the possible end of a 220 year history of self-government.

In Section 10 of the "Social Impact Assessment", it is noted "the project can affect a number of aspects of life that are not readily quantified but are nevertheless important because of the values and attitudes held by the affected residents. Potential impacts could include effects on traditional activities, aesthetics and way of life."

The report emphasizes that the ultimate social impact of this issue is the level of risk that Islanders are prepared to tolerate regarding the accuracy with which impacts will be predicted! And yet beyond the preliminary assessment, no further study was undertaken.

In the summary, the report points out that "the transportation-related impacts of a fixed crossing on Prince Edward Island's industries cannot be forecast with any degree of certainty...Businesses that feel vulnerable may retrench and concede some of their markets to mainland firms. More aggressive firms may seize the opportunity to expand mainland markets. Both reactions will occur, but which will predominate is impossible to predict."

And finally, the report points out "A more speculative set of impacts would be the effects of the crossing on Island's sense of place and sense of distinctiveness. These concerns would be reflected in the extent of risk which Islanders are prepared to take that the overall impacts of a fixed crossing would not be negative. Since all of the potential or important impacts of installing a fixed crossing cannot be predicted from the available evidence, there is still room for further inormation, discussion and debate." A point which I think is severely understated.

If I can be so bold as to paraphrase the above; Islanders are being asked to accept an unknown amount of risk for an unknown amount of social, psychological, political and economic change for an unknown set of benefits or disadvantages based on a project that cannot be compared socio-economically to any other known similar project! And then we are being told that a fear of change is the basis for our concern over how a fixed crossing might affect our "way of life".

In his recent bridge selling visit to Prince Edward Island, the Honorable William Casey for Nova Scotia is quoted as saying he doesn't blame anyone for wanting the "Island way of life" but asked how it can be maintained if youth have to travel to find employment. The assumption being that the presence of a fixed link will solve the unemployment problem of Prince Edward Island. In fact, upon examination of the Assessment Reports, in the end, after the dust has settled and the ribbon cut, it is estimated we might experience a net gain of about 300 new jobs, the vast majority of which will be in the unorganized, minimum wage area of the tourism service sector. So the trade for an Island way of life might be 300 seasonal minimum wage jobs? The Honorable Willliam Casey failed to point out that our sister island, Cape Breton Island, which has had a fixed link for over 25 years, has an unemployment rate well in excess of ours. The Canso causeway has not halted a steadily declining population which in some areas of Cape Breton has become so acute as to have officials concerned about populations falling below minimum critical levels required to maintain minimal social and infrastructural necessities.

Islanders who are opposed to a fixed crossing based on a concern for an Island way of life are generally considered by fixed crossing proponents, without any data or basis, as old fashioned, out of date turn of the century Luddites who are desperately afraid of change. I would like to put one small data point on the coordinates. As one who has moved his family 29 times prior to establishing residence here fifteen years ago, worked at being a news reporter, pipe-line roughneck, academic researcher, management biologist, consultant, farm hand, writer, farmer, facilitator, agriculture extension agent and independent business person, I find the stereotype offensive. To be opposed to a fixed link does not mean a fear of change, what it may mean is a lack of willingness to accept unquestioned change from unquestioned quarters, and give up some social values held dear without an adequate or improved alternative.

The fixed link proposal was apparently an "unsolicited project from the business sector". That was where the questioning of the social and philosophical value of the project ended. An assumption that a proposal from business would be good for business and hence good for Prince Edward Island seemed to prevail. Surely we are at a stage of our social and philosophical development where we can show adequate concern for the intangibles, or hard to get at questions rather than trying something just to show it can be done. Life on an Island is much more than just the sum of its easily measurable parts.

Ladies and gentlemen of the panel, you have heard many times that the fixed link is an idea whose time has come. I think the fixed link is an idea whose time is past.

The assumption in the consideration to date is that to be economically successful, we must be permanently physically attached to the mainland to move goods to market. This is based on straightline, "business as usual" thinking, the assumption being made that for the approximate 100 year lifespan of the bridge our major economic function will be shipping unwashed potatoes in 50 pound paper bags to Boston and Toronto in semi-trailer trucks and relying on tourist income from our two adjacent provinces. What this amounts to is looking for an industrial era solution to what is very rapidly becoming a post industrial era problem. A fixed link is not the only answer to improved economic conditions for Prince Edward Island and is likely far from an adequate one.

The Island connection that is needed for life and business in the twenty first century on Prince Edward Island is not a physical link to Cape Tormentine but an electronic and communications link to the rest of the world. Future success will not be based on moving a large bulk of low per unit value items over great distances. Economic success will depend on how well we can take human and physical resources and add information, skill and value to them to create high value products which are in demand in a world marketplace to a degree that minimizes the relevance shipping costs. This is a basic aim of present Island industrial strategy, it is the exact antithesis of the need for a fixed link. There are already several businesses on Prince Edward Island taking this approach and developing it successfully.

A recent Economic Council of Canada report "Good jobs, Bad Jobs" points out that presently seven out of every ten workers in Canada are employed in the service sector. That is expected to rise by one per cent per year to 1993. It is understood that service sector jobs will be essentially all of the new jobs created in Canada in the next ten years. Two thirds of these workers are in the highly skilled well paid information handling and knowledge processing part of the service sector. The other one third are in low paid, low skill, labor based service jobs. The EEC report makes the point that "no longer can prosperity come straight out of the ground: increasingly it must come from the minds of Canadian people." How we decide to connect ourselves to the rest of the world will have a great effect on which level of service sector jobs are made available to Islanders. A physical fixed link to the mainland will prepare us for a minimal increase in industrial labor jobs and the low paid bottom end service sector roles we are presently well aware of. A sophisticated electronic and communications network can move us into the 21st century of building knowledge and information into the products of our land and minds.

In conclusion ladies and gentlemen of the panel, I see Prince Edward Island in the future as a physically separate, politically distinct province with a unique Island way of life that is pleasant, rewarding and socially meaningful. It will be a place producing life, goods and services that are in demand worldwide and available by way of a sophisticated system of electronic links supported by an adequate and improving ferry system. It's physiacl separateness - its Islandness - will be a distinct and constantly increasing advantage.

Thank-you for your patience and attention.

PRESENTATION TO THE

ENVIRONMENTAL REVIEW PANEL

MARCH 29, 1990

BY

[redacted]

I was driving with my ten year old son along the shore on the way to a late afternoon hockey game in Rustico. He sat quietly in the seat just looking out the window at the passing landscape and seascape. I turned to look at him several times, but he didn't even notice. He was absorbed in his looking.

Then it occured to me what he was doing. He was taking in the landscape. He was, if you will, ingesting the Island. And that is exactly what happens when you live here for long - you take the Island inside - deep inside. You become an Islander, which is to say, a creature of the Island. Islandness becomes a part of your being - a part as deep as marrow, and as natural and unselfconscious as breathing.

The idea of a fixed link joining Prince Edward Island to the mainland is a prospect which is disturbing to many Islanders. The source of this disquiet is often so primal that it is not easily expressed, and is sometimes articulated in terms of a threat to the "Island way of life."

This phrase, "Island way of life", does not, however, adequately identify the source of the disguietude, referring as it does to such things as tradition, social economic and political arrangements, or even the pace of living. I would contend that we must go deeper; that the most radical and deeply-rooted concern of many Islanders has to do with what we might describe as the "islandness" of their identity, both as individuals and as a community; and that you would expect to find it best expressed, not by politicians or academics or journalists, but by artists and poets.

Wherever we look in the world we discover peoples whose lives and cultures have been shaped by their natural environment. There are mountain people, valley people and people of the open plains. There are polar people, coastal people, and people of the forest. In each case the nature of the Community - its mythology, imagination, its very soul - has been sculpted and colored by its geographic circumstances. Further, it would certainly be foolish to think of any one of these as being superior to the others. Each is good and bad in its own way, and its strength and genius is derived from its adaptation and response to its own geographic peculiarities.

The people who live in this province are Island people. This is more than a statement about our location. It is a statement about our very nature and essence. It is deeply and profoundly who we are. If we deny it, we betray ourselves; and for a society, no less than for an individual, it is a matter of great and grave seriousness to deny or compromise your essential being.

Again, this is not to suggest for a moment that being Islanders makes us better than anyone else. Such a notion, when it appears, is not an expression of confidence and integrity, but of insecurity. To say, "we are Islanders", is not, therefore, to claim any superior virtue. It is simply an acknowledgement of our own true nature as a people, an acknowledgement that we have an Island psyche - an Island soul.

The uniqueness of an Island is its geographic precision. "An Island", as I was taught in grade four, "is a body of land completely surrounded by water", or, as a friend from Cape Breton recently expressed it. "an Island is geographically perfect."

Another Islander penned this statement about twenty years ago.

> The Northumberland Strait has always been nature's emphatic and unambiguous way of informing Islanders that they are a separate and unique people. Living on an Island inculcates a vivid and precise recognition of exactly who you are - and who you are not. Year in and year out, generation after generation, this singular geographic circumstance dictates both a sense of unity and separateness.

Notice if you will some of the words in this description. They are important. Emphatic. Unambiguous. Vivid. Precise. These are not just descriptions of the geography of an Island, they are, more to the point, descriptions of the consciousness of Islanders. And that is just why the prospect of an permanent fixed link is unsettling. It may seem a small thing to someone who is not an Islander. but for many of us who have grown up here it represents and affront to who we are. Proponents of the link have said that it will only enhance the Island way of life. That is quite absurd. You might reasonably argue that it will enhance the economy of the province, or that it will make travelling on and off the Island more convenient, but you cannot reasonably argue that it will enhance the Islandness of our way of life. You can no more enhance the Island way of life by building a fixed link than you can enhance the forest by cutting down the trees.

Economically, socially, psychologically the construction of a fixed link will reduce our insularity. It moves us in the direction of peninsularity, which, as the word itself expresses, is a state of being almost an island. There is nothing wrong with that, but we should not pretend that it makes no difference. It is fine for Nova Scotians or Gaspesians; it is who they are. But it is not who we are.

Lord Tweedsmuir, Governor-General of Canada in the 1930s, made the following comments in a speech delivered in Charlottetown in 1939.

> What is it, he asked, that gives an island its special charm for the heart of man. I think the main reason is that an Island has clear physical limits, and the mind is able to grasp it and make a picture of it as a whole.

Once again it is important to be aware that Tweedsmuir was speaking, not just of a topographical shoreline. Rather, in thw words of an Island song-writer, he is speaking of the "psychological shoreline' which has been internalized in the consciousness of Islanders, and informs every aspect of life in this province.

This deep truth about ourselves is also expressed simply and eloquently in Milton Acorn's poem, "The Island."

> Since I'm Island born, home's as precise
> as if a mumbly old carpenter
> shoulder-straps crossed wrong, laid it out,
> refigured to the last three-eights of shingle.

The topography and landscape of this province, that is to say its Islandness, is the source and reference point for the immagination of Islanders. It is the primal source of our communal insight and wisdom. As we have already said, this is not to speak exclusively. There is imagination and wisdom which grows up in other dissimiliar places, and we recognize that we have much to learn from others in this regard. But when we fail to reverence the unique identity of our own place, we dispise our own birthright, and cut ourselves off from the ground of our own insight and imagination. If we do that we will still be able to recieve from others, but we will have compromised the source of our own creativity, and the world will be the poorer for it.

For the Island community, no less than for an individual, the failure to respect the truth about ourselves is a serious and soul-destroying failure. Any repudiation of our Islandness is, therefore, a deep and fundamental repudiation of who we are - and of our uniquely precious existence.

This term Islandness or "insularity" frightens some people. They think it a sign of narrowness or Narcissism. There is, however, no inherent contradiction between "Island-identity" and "global citizenship", anymore than there is a conflict between the healthy self-esteem of an individual and her ability to participate in community life. Indeed, the two are not conflictual, but complementary. In other words, my identity as a citizen of this Island we call Prince Edward is a complement to my identity as a citizen of this island we call the Earth.

There are three islands in the experience of every human being living in the 20th century: the island of the self; the island of the particular spot where you live; and the island of the world. What I am saying to you today is that these three are interdependent, and that a lack of integrity in any of of these spheres diminishes the wholeness of the others.

I would once again draw attention to the work of Milton Acorn who, in a poem about himself, wrote:

> To be born on an Island's to be sure
> You are native with a habitat.
> Growing upon ones good training
> For living in a country, or a planet.

One of my students was recently doing an interview for one of my classes with an elderly Island woman. In the course of the interview the girl refered to the Island as P.E.I. The woman stopped her and chided gently. "A place as beautiful as this" she said, "shouldn't be abbreviated. Say it right out dear, Prince Edward Island."

Ladies and gentlemen of the panel, my contention today is that the construction of a fixed link represents an abbreviation or diminishment of our Island: or, to put it more even more pointedly, it represents for Islanders a deep psychic or spiritual violation. It puts a kind of chill right down to the marrow of who we are.

If it were essential to our survival we might be prepared to endure it, but since it is not - since, indeed, it may even harm our capacity to provide a livelihood for our people - it is a violation which ought to be resisted.

① Presentation to the Fixed Link Panel

Sharon Labchuk

I would like to speak today on behalf of my children and on behalf of future generations of Islanders, whose inheritance of "this fairest land tis possible to see" is threatened.

We in PEI are some of the most fortunate people in Canada. We enjoy a lifestyle and a quality of life envied by anyone who has ever visited this province. Our Island way of life, where neighbours still know each other, where violent crime is unusual and where land, air and water are still relatively unspoiled, has long since disappeared in many places. We value our way of life and will jealously guard it from those who would destroy it for this ill-conceived make-work project.

A fixed link would alter for all time the unique character and quality of life that we cherish. We would no longer be an Island. The Northumberland Strait is a buffer from the stress and chaos of the mainland. Attached to the mainland we would simply be an appendage of New Brunswick.

It should be clear to the panel as these hearings draw to a close that the ordinary Islander doesn't want a fixed link. The proponents of this scheme, like the construction industry and tourism - all stand to make a quick buck. And where there is money to be made, people and the environment have always taken a back seat.

The environmental assessment done by Public Works is nothing more than a sham. The research is clearly biased, incomplete and inadequate. This assessment would have been much more credible had it been carried out by independent experts. Islanders simply do not trust Public Works to present the truth.

The link has been slickly marketed as our salvation - we'll all be employed, get fat and live happily ever after. The only employment in the near future would be short-term construction jobs and there are no guarantees these jobs would go to Islanders. After construction we'd be stuck with low-paying seasonal tourist-related jobs as tourism would quickly take over the economy.

An estimated 145,000 more tourists per year would come to PEI. Just how many more tourists can this little ~~support~~ Island accomodate before our Island way of life ~~is [illegible]~~ is consumed? When summer comes to PEI we can no longer go about our every day activities but must make allowances for the tourists. Trips to Charlottetown are made ~~when~~ only when absolutely necessary, in order to avoid traffic congestion, crowds and line-ups. The Cavendish area is to be avoided at all costs. We take our summer guests for the obligatory look at the Cavendish beach and Green Gables and then quickly whisk them away to quieter spots. With this massive increase in tourism expected, will there be any haven left from the crowds? We year-round residents of this holiday Island are not prepared to sell our souls and our quality of life for the quick tourist buck.

Along with increased tourism comes increased stress on the Island's fragile environment. Already the North Shore eco system has suffered considerable damage. Can the Island's environment withstand the onslaught of 145,000 more tourists? I think not.

Increased tourism also means increaced land prices. The support document for QUESTION K states, "These new visitors will require accomodation and new facilities for entertainment, therefore, it must be presumed that increased tourism will result in an increased demand for land for recreational purposes". How long will it be before Island residents won't be able to afford to buy land or homes in their own province?

Tourism generates an enormous amount of garbage. Where does Public Works intend to store the garbage from 145,000 more tourists? We have no recycling programs at all, and no legislation restricting the disposable type of products normally used by vactioners. The incinerator already runs at capacity during the summer. This leaves the garbage to be buried in holes in the ground. This is not the legacy I wish to leave my children.

It has now become apparent with the present world-wide environmental crisis that we must put the environment ahead of economics. For without a healthy environment there will be only short-term economic benefit for a few and no future at all for our children. The fixed link proposal clearly does not reflect the changing values of Canadians. The outrageous sum of money proposed to be spent on a bridge would be better spent on development that doesn't sell-out the environment for jobs – development that is consistent with our Island way of life and our values.

I beleive a first-class ferry service would best serve the needs of Islanders, safe-guard the fishery;

avoid a multitude of potential environmental disasters and most importantly leave our Island way of life intact so that we may pass these values on to our children.

In his presentation, Gary McLeod of the Greater Charlottetown Chamber of Commerce said, " If we can't adjust to ~~th~~ a fixed crossing to the mainland, then we're not likely to be able to adjust to a world community". The question is not our ability to "adjust" but rather our ability to bolster our defenses against this pack of opportunists who would rip out the very heart ~~out~~ of Prince Edward Island.

Sharon [illegible]

Presentation to the Environmental Assessment Panel reviewing the Northumberland Strait crossing project

Teresa Doyle, Bellevue, RR 3 Belfast PEI C0A 1A0

Mr. Chairman, panel members, friends and neighbours: I am delighted to be given the opportunity to speak to you on the effects of a fixed link on the Island way of life.

I am a musician by profession and the cultural heritage of this Island is vital to my livlihood. As a singer of traditional Island music I am determined to protect our cultural and physical environment from those few that see this project as an opportunity for short term personal gain. I have attended a number of these hearings and in virtually every case proponents and supporters speak in terms of financial gain. No one has claimed that this project will be good for the environment. No one has claimed that this project will be socially, or culturally, enriching.

During this presentation I will be speaking about philosophy. PEI is and Island, and by virtue of being an island we can to a greater degree than a landlocked province have a collective philosophy. We could, for example, decide to make our Island a world leader in environmental responsibility; being relatively industry free we are in a position to do so. Support for sustainable agricultural practices and recycling programmes is running high. The smart business people are cashing in on this. The fastest growing sectors of industry in Canada are those that address the environmental concerns of the people of Canada. It is refreshing to realise that people can make a buck and do something positive for the planet at the same time. Everyone is getting on the bandwagon . . . . supermarkets, investment groups, even chemical companies. Certainly there is room for the cynic to complain about this cashing in on the public will to be caretakers, not pilferers, of the planet. We must be grateful that the public is ready to make the necessary changes and that business and government, if reluctantly, will follow suit.

Bridge supporters and proponents would have us believe that we are behind the times. We are the last in line for industrial expansion, corporate investment, massive construction projects and bigger food banks. Well, that's true. We are at the back of the line when it comes to the big boys handing out, or receiving, mega buck goodies with thinly disguised socio/economic and physical costs. What these people have yet to realise, however, is that society is taking an about face. That puts us at the head of the line - and that's where I think we should stay.

This project can only put us at the back of the line again.

Mega project mentality is not consistent with 1990's philosophy, nor does it make good economic sense. The World is changing at a fantastic pace - Build today . . clean up tomorrow - just isn't good enough: and, 'buy now pay for later', isn't either. Personally I am surprised that this close to the year 2000 we still use fossil fuel vehicles - this bridge locks us into an old fashioned future.

Public Works Canada has spent a lot of money making this project look attractive. Has this money been well spent? Did they get a good bang for their buck? Have they done their homework? Did they think, that by making no money available to people whose concerns are more broadly based, that slick answers and shaky assumptions would go unchallenged? With no money and only twenty minutes I would like to address just a few of their suppositons.

Let's talk groundwater:

Section H-1 "The commercial mining of beach sand from the inter-tidal zone around PEI is occasionally practised but it is strictly regulated."

Last summer alone, four of my favourite beaches were under attack. If the individuals involved care as little about groundwater as they do about destroying the beauty of the landscape, we're in deep trouble. These beaches - Poverty Beach, Hawkins Beach, Little Sands and the Flat River sand bar - are all down on the east end of the Island. I have no reason to believe "that the commercial mining of beach sand is occasionally practised and strictly regulated" in other parts of the Province. Lane and Associates must have conducted their studies in the National Park!

Section H-2

"An increase in tourism of 25% would tax the groundwater resources of PEI proportionately."

".....the groundwater supply in PEI at its present and projected level of use, should be ample for a 25% growth in tourism. This statement is linked to the assumption that the concomitant waste water wil be properly treated and disposed of and the appropriate regulatory review will occur during this development."

Is the supply ample or is it not? and if regulated during development, what about after?

It doesn't say anything about after. What reason does Lane and Associates have to "assume" that waste water will be properly treated and disposed of? We are having trouble coping with this problem already! Tignish, North River and Cornwall are in big trouble, not to mention countless individual sites across the Province. And if the public were confident with expert assumptions Mr. Zakem would not be at odds with the community of Southport concerning proper treatment in his latest development.

British scientists state that contaminants take as much twenty years to filter through to the water table. Given that the bulk of pesticide use in this Province has taken place in the last twenty years one could assume that we have not even begun to deal with the problems we have already created. Lane and Associates do not address this issue nor do they tell us if the level of groundwoater is currently being overtaxed.

and finally,

Section M-1

Listed are seven of the pesticides in use in PEI and it is explained that some pesticides and fungicides are highly soluble and persistent in soils. In the next paragraph they state "The major crops under cultivation in the Borden area are potatoes and grain crops. Pesticides are not in common use but fertilisers may have important influences on ground water quality."

This is a break through - Pesticides are not in common use with Borden potato farmers. Has Borden been declared a pest free zone? Has this made the news? What do we mean by common use? and finally what are the "important influences" that fertilisers "may have" on ground water quality?

Let's talk land use:

Section k-1

The consultants begin by reviewing the changes in land use and ownership over the past decade. The family farm has declined, farms in excess of 400 acres have increased and there has been a trend to land leasing rather than purchase.

"These changes are expected to continue irrespective of a fixed crossing, due in large measure to the economics of the industry."

I submit that these changes are not "irrespective of" but, rather, 'crucial to' a fixed link. This project invites corporate access to our greatest resource - the land. Corporations are poor custodians of the soil. They mine our topsoil and we pay for the clean up.

The Barbara Waite River (known to some as the Barbara can wait River) is a fine example of the affluent and their effluent. Again last week the Irvings affirmed their reputation for poor corporate citizenship. Twenty thousand litres of gas leaked from one of their Charlottetown facilities over a four month period. This cannot be deemed an accident when they knew it was happening. Our government fined them a thousand dollars - they might as well have sent them flowers! But I, for one, realise how powerless our government is when dealing with a company of this size. Why, I ask, are people so anxious to invite the fox into the chicken coop?

Section K page K-2

"Land diverted to tourism use is expected to consist largely of land that is of marginal value to agriculture."

Looking through the Visitors Guide I was hard pressed to find any tourist facilities built in gravel pits, landfill sites, swamps etc. We like to make these places attractive. That usually means converting farm land; although when Irving and McCain are finished with us, we may have a great deal of marginal land available for tourism use.

Section K page K-2

"Concern for cottage development may have been overstated and real demand may not exceed the number of cottage lots which have already been approved for development."

In a discussion with the author of this statement I explained that there are, to my knowledge, only a handful of waterfront lots in Eastern PEI on the market at present. He countered that although this is true, scores of lots are approved for development and will go on the market when it is more profitable. I ask: Who is sitting on this property and what are they waiting for?

Section K Page K - 2

"The analysis of tourism impacts does not support the likelihood of a significant increase in non-resident ownership generated by the bridge crossing alone.

"While increased speculation in land may be encouraged by the construction of a bridge crossing, this would appear to be a consequence of any major project, and an almost inevitable corollary of economic development."

Let's examine these statements. First we are assured that non-resident ownership is unlikely to increase. Then we are told '.. that land speculation may be encouraged by the construction of a bridge crossing'. Confused yet? Finally we are told that '..land speculation is a consequence of any major project, and an inevitable corollary of economic development.' So? that's what we are here for, to talk about the consequences of a 'major project'. To say that this, that or the other thing is an 'inevitable corollary of economic development' does not justify living with the consequences. The profit to be made here is for speculators and will not contribute to the economic underpinning of the Island way of life.

Mr. Chairman there are just too many issues to deal with in twenty minutes. Proponents and supporters talk about jobs, temporary construction jobs, many of which would go to off-Islanders; we are trading five hundred and ten, year round jobs with Marine Atlantic for hypothetical seasonal employment in the tourist trade. Sounds like a bad deal to me! Mind you there will be sixty odd jobs on the maintenance crew for the bridge but even this is troublesome since PWC forgot to budget for snow removal and service vehicle costs.

Farmers are told that the bridge will give them "improved access to markets, with greater reliability and predictability in meeting market requirements..." yet in **Section N** in addressing possible disruption of the fixed crossing, PWC talk about recruiting existing vessels, modifying existing harbour facilities, chartering special purpose vessels, providing ice-breaker escorts etc. **I would hate to have perishable produce awaiting that exercise!!**

Let's talk fisheries:

In 1987, when talks of a link to the Mainland were revived, the Atlantic fishery was in good shape. Fisherman were optimistic about the future. Such is not the case to-day. This industry is in serious trouble. Fishermen did not support this project two years ago - is this the time to add to their problems by embarking on a mega-project with unpredictable environmental consequences.

During the last round of hearing PWC promised the fishermen of PEI not to proceed with building a link against their wishes. Let's turn our attention for the moment to the meeting in Belfast on March 19th. Mr. Feltham promised Wood Islands ferry workers that there will be no decrease in services or employment by Northumberland Ferries. This, despite the fact that federal subsidies are directly linked to traffic flow and, by his own admissionm, we can expect a 35% decrease.

At Belfast last week Mr. Feltham had no recollection of the promise made by his predecessor to Island fisherman. Mr. Feltham do you remember the promise you made to ferry workers last week?

Can you repeat this promise, and have you the authority to do so? Will PWC have to resort to the Reagan example to establish deniability for members of the department?

Back to fishermen:

Fishermen are supposed to be lulled by the promise of compensation. Let's turn to **Section M** of the PWC assessment.

"The artificial building up of these gasses due to man's activities, within the last century in particular, has raised concern that global temperatures may continue to rise indefinitely, thus changing the climate of the whole planet.

....

"The overall effects on fish and fisheries as a result of these trends are not known."

"Such varied and dramatic environmental changes are expected to alter habitats and species in the Gulf of St. Lawrence. By comparison the impact of the bridge will be slight (barely measurable, if at all)."

Wonderful logic gentlemen - If Point Lepreau blows. nobody is going to be talking about the smell in Saint John Of course the bridge impact will be barely measurable - that does not justify it. To suggest that it is measurable at all in Global terms underlines the monstrous size and impact of this single project.

Picture yourself standing on the edge of a landsfill site and pointing out one truck load of the tons of garbage in view; imagine yourself trying to make a legal case that the contamination in your well is caused specifically by that particular truck load of garbage. That is the type of scenario facing Island fishermen in post construction compensation claims.

Let's take another look at that landfill site. Personal conveniences, such as disposable diapers, unnecessary packages etc., constitute a large proportion of the problem. Given the questionable economic benefits of the link (ie will it really be more reliable, particularly in winter weather?; will we win or lose in the job-game?; will tolls be astronomical?, etc??) we can only conclude that supporters of the link must be concerned more about personal convenience than environmental responsibility. Oh yes! Let's build a fast track to the mall in Moncton without giving a thought to the fact that we are destroyiong local businesses in the bargain. Has this been addressed by the Summerside and Charlottetown Chambers of Commerce, or do they believe the traffic on the bridge will be one way?

Do we have a moral mandate to proceed with this massive construction project? Scientists are telling us to concentrate on correcting the many problems we have already, not create new ones. How much are we contributing to global warming in the construction phase of this project? How much lunar landscape will we be creating in the gravel and aggregate extraction sites of both PEI and the Mainland?

Mr. Chairman global warming is by PWC's own admission a result of man's activities, industry and cars being the prime contributors. Note, we are burning our bridges for more benign rail transport - in direct contradiction to everywhere else in the world - another example of putting us, that is Islanders and **our** way of life yet again to the back of the line when we can be at the front.

The Island way of life is not romantic notions of the past, nor airy fairy dreams of quick profit . It is a hard working, realistic approach to living within our means. We must protect our soils and seas with a philosophy consistent to a belief in the continued presence of mankind on this planet.

THE ISLAND WAY OF LIFE

A PRESENTATION TO THE ENVIRONMENTAL ASSESSMENT PANEL

by John Eldon Green

Presented at Charlottetown, PEI: March 29, 1990

PRESENTATION TO ENVIRONMENTAL ASSESSMENT PANEL

by John Eldon Green

March 29, 1990

THE ISLAND WAY OF LIFE

Mr. Chairman and Panel Members:

Yesterday I addressed the Panel as a professional consultant, in behalf of Public Works Canada; today I wish to speak in my own behalf, as a private person. Before doing so, I would like to make clear that my presentation will not attempt to make a case either for or against the construction of a fixed crossing. My intention is solely to assist the Panel, as an Islander, in its' efforts to understand the Island Way of Life, insofar as it relates to the fixed crossing issue.

I am an Islander both by birth and by choice. My father's people came to PEI more than 200 years ago, my mother's people a more recent 150 years ago. I myself have been an Islander for more than half the period since Confederation. For over 30 years I was employed in the public service of both Canada and PEI, and my work took me regularly to all parts of the province. During my lifetime I have made a small contribution to changes in some of our major social institutions, a contribution I was able to make only because I have observed and studied this Island and its ways from many perspectives over many years. Ever since the referendum two years ago I have made a particular effort to understand and define what we Islanders mean when we speak of an Island way of life, through discussions with many people.

For these reasons I believe that I have earned the right to speak to this subject. I am doing so only because of my very deep appreciation of the serious duty which has been accepted by the Panel, and my sense that I would be remiss if I did not make the contribution which is mine to make.

Each Islander has his or her own perspective of the Island Way of Life, drawn from personal experiences. Any attempt to define it will inevitably draw a parallel to the Six Blind Men of Hindustan "who went to see the elephant, though all of them were blind". In this case, however, it would not be difficult to get sixty versions of the object under study, rather than merely six, each also being "partly in the right, though all (are) in the wrong."

The first and most evident character of the Island way of life derives simply from the fact that we live in an environment of special beauty, one which is clean and open and relatively safe, and is easily accessible to us all. Those of us who have made our lives here have been shaped by many factors: by the sea (and ice) around us, and our sense of separateness from the outside world; by the multifold influences of our rural culture, including our abiding love affair with the horse; by our predominantly celtic and acadian heritage; by the processes through which our communities were settled and our lands acquired; by our extensive networks of relatives and friends, and our deep family traditions; by our historic pursuit of autonomy in the management of our own affairs; by our varieties of religious inspiration; by the ferry schedules; and by like influences almost beyond number. **To the extent that these influences, in any combination, are unique to PEI then so is our way of life unique; and to the extent that some of these are changeless, our way of life won't change.**

Much of our history since Confederation has been one of emigration, rather than immigration. Of my ten brothers and sisters only two now live on PEI; of my own seven children only two, perhaps only one, will remain here. And while we cherish our right as Canadians to settle in other provinces, we have sometimes been churlish about the right of others to settle here. We know what we have, and we have this fear that other people will discover it, and come from away to trample it and change things unmercifully. On the other hand, it is often those who have come from away to settle here who least want the Island to change; they are the most zealous guardians of an adopted heritage, which they would protect against others of their kind -- who have been named by a friend, himself from Saint John, the "OPFA's" -- the Other people-from-away.

Rooted more in nostalgia than in reality, the "Island Way of Life" has to some extent become a gentrified concept. It bears overtones of a quiet contentment, secure husbandry, a relatively peaceful and untroubled life, and even suggests that there exists a unified value system which all Islanders have shared. However our way of life has also included a powerful leaning towards the status quo in our political, economic, social, and legal institutions, which has kept many of our citizens in an underclass of poverty and denial of opportunity, in conditions of neglect and abuse, in chronic unemployment and under employment. These Islanders have not shared in the idealized "Island way of life", although the concept is so emotive that even they will buy into it. We continue with our innate respect for the ideal of a rural gentry; we wish, even yet, to share what we thought they had.

Unhappily, the "Island way of life" is not a well integrated concept from which our society takes its form and direction. Instead, it is full of contradictions which make it almost impossible as a reference point.

Along with our well-known generosity in times of disaster there can be found a meanness and narrowness within our communities; our presumed respect for and acceptance of differences can at times be nothing more than a facade masking a harsh intolerance and bigotry beneath.

We can speak of the small scale and easy pace of Island life and our informal way of doing business, but this can also take the form of extreme opposition to proposals for social development and intolerance of change, including at times opposition to new entrants into our business community.

The familial patterns and extended networks of friendships and acquaintances which we cherish also mean a lack of privacy in our personal lives, as well as the exclusion of new residents from our inner circles; within our apparent openness and friendliness, new residents have encountered quite a closed society.

Although we take pride in our independence and work ethic we have also accepted large scale dependency on social insurance as a central component of family income, some times in preference to employment.

Where there appears to be a strong sense of unity among Islanders, there are also continuing divisions on religious, ethnic, racial and political grounds. We are born into a political party and many of us die in it. We like our people to be predictable, to fit the niche which history defines for us.

The emphasis we place on personal and collective freedom of action can also be expressed as a failure to protect and advance the common welfare within communities, to the extent that the public good may interfere in any way with the right of owners to do what we wish with our land or property. This failure of our social sense shows itself in a pervading anti-planning bias at all levels of our society.

While we take pride in the enjoyment of the Island's physical beauty, we will also resist or ignore efforts to prevent the progressive despoliation of our environment, and we will desecrate and litter our landscape, our shorelines, and our streams as disposal beds for garbage.

It is the existence of these sharp contradictions which make it impossible to describe the Island way of life as any kind of unifying or informing principle which can give definition to our lives. It doesn't work that way.

This brings me to a fourth facet of our way of life, which is that we are best able to describe ourselves accurately as Islanders only when speaking in apposition to "people from away". In domestic matters we most often do not think as Islanders. Among ourselves, being an Islander has less meaning than being from Tignish, or Souris, or Montague, or Charlottetown. To work for our Capital City, the city of Charlottetown, for example, it is not sufficient that one reside on the Island of which it is the capital, one must also reside within that city. In some cases our identity is not only a matter of residing in a particular community but also on which side of the bridge we may have located. (The Fixed Crossing may yet reflect this characteristic, on a grander scale.)

Within a 10 km radius of the Charlottetown waterfront we have established sixteen separate communities, which serve about 50,000 people. Each of those communities is quite attached to its own independence, and each one duplicates in some measure the work of the whole. In that respect, what we share as Islanders may be nothing more than a very narrow view of community; and this also has its roots in our history.

This very specific sense of place has helped us to achieve a very high level of social participation, of community and public service. As a province, we have had opportunities to be part of all national endeavours, to participate at the national level, as many thousands of our citizens have done. Here on PEI we can all count for something, we have a sense that we can make an impact, we can seem to be in charge of events. This aspect of our way of life requires that we not be taken for granted, that issues be continuously reformulated until they are comprehensible and acceptable to us, that there be few surprises.

We expect that our elected leadership must pay attention to us, must not tell us too smartly where we have been wrong, or presume to tell us where we should be going. We have defeated Federal Cabinet Ministers who may have performed superbly at the National level and may have brought honour to PEI, but who all the same were perceived to have failed in the smaller things of home.

To be credible, however, a "way of life" must have more than philosophical or conceptual existence; it must have some reference to daily living. That is, it has to be seen in its external as well as internal expression.

My personal experience of the Island Way of Life began at a time when the prevailing mode of travel on PEI was horse and sleigh in winter, and horse and wagon during the rest of the year. (One of the delights of my youth was an occasional summertime drive with one or other of the rural mailmen in his "rig" as he zig-zagged his way around his eight-mile route, permitting me to stuff the mail boxes on my side of the road.) The car ferry was then a "train car" ferry; few automobiles were carried, and seldom were any carried in winter.

In my boyhood and early youth, each community had to create its own entertainment -- dances, concerts, plays, visits to one another's homes, conversations at village meeting points, card plays, fishing, softball -- anything that would pass for recreation. Each community had its resident music makers, singers, step-dancers, and amateur actors, and communities would share the experience of attending and enjoying one another's concerts. Legal bars and nightclubs were not to be found anywhere on PEI, and drinkers were either sports or scoundrels -- take your pick.

My village was an important rail shipping point: it had three warehouses, a stock yard, the CNR station, a bank, three stores, a two-room school, a barbershop, a forge, a butcher shop, garage, a church, a post office, and so on. We had four passenger trains stop there each day. People came to Albany from several miles away to do their shopping. There were jobs in the village for the people who lived there.

My family had one of the few phones in the village, and for a time the only "electric" radio. Children were born in their homes; my mother, herself the mother of eleven children, was the unpaid midwife of choice throughout our region during the 1930's and later.

Schools were to be found every three miles along the highways, from which most students would have departed by the end of Grade VIII. Teachers were hired and fired at the whim of any two of the three local trustees, unrelated to pedagogical reasons; the entire teaching resources of my two-room school included several maps and a globe, a few library books in the corner, and the regulation corrugated strap.

My family was Roman Catholic, and every Sunday in winter and spring, when roads were not passable, we would walk the three miles to our parish church at Seven Mile Bay, often having fasted from all food and drink from the previous midnight until we returned home at noon. Our family life was geared to the Liturgical Year of the Church, observing Advent and Christmas, then Lent and Easter, and all other high points of the Church year. Church events and the daily rituals of family prayer were equally as important in our lives as community events, no matter how little we may have enjoyed the religion.

I am telling you all of this not because my story is unique, for each member of the Panel and each adult resident of the Province could describe similar experiences of transition; **I am relating this simply to illustrate from personal experience my fifth point about the Island Way of life: namely, that it is dynamic, not static.** The way of life that I have described virtually came to an end for my community by the 1960's. This was because of such influences as increased automobile travel, the construction of the Trans-Canada highway and its feeder network of all-weather roads, the progressive abandonment of the CNR as the preferred mode of transportation, and other powerful factors, including television as a form of home-based entertainment.

The decline of my village was then completed in the 1970's with the coming of the supermarkets and the shopping malls, the creation of centralized school administrations and new regional schools, and like development. Apart from the Post Office, the heart of my old village has entirely disappeared. That way of life has ended and the village has declined. As a friend told me recently, perhaps Albany has simply moved to Sherwood, to be where the jobs are.

My sixth point is that **throughout the process of change which I have just described some enduring values and characteristics have persisted.** This has not been because we Islanders have recognized certain values as being of paramount concern to our society, and have made deliberate efforts to ensure their survival. To a large extent those values have survived simply because it happened that way -- because they are so deeply ingrained within our customs and conventions that we could hardly shed them if we wished.

It is now being suggested that although those enduring values have survived many manners of change up to this time, they will not survive a fixed crossing; they will, however, survive a possible expansion of the ferries system. I have had some difficulty in understanding this position.

The puzzle for me throughout this three-year debate on the crossing has not been whether or not the underlying values of Island life will survive a fixed crossing, but rather this: what values do we Islanders want to have survive? which of our values is a fixed crossing likely to destroy? and what conditions must be established to guard against their destruction? I am not aware that we are approaching consensus on these issues, and it may not be possible for us to do so, no matter how long this debate may continue.

When we speak of "The Island" to outsiders we do so in an almost mystic sense, as describing a life known only to the initiated. In doing so we must to a great extent deny reality. Thus what I fear most from the construction of a fixed crossing is not that it will cause a breakdown of the Island way of life, but that we will continue to believe in the unassisted power of the Island mystique, and do nothing practical in the face of new social forces. In particular, my concerns are:

- that we will not identify and take collective action to protect important social values, any more than we have done so in the past;

- that we will not undertake deliberate and responsible planning to mitigate foreseeable impacts on our way of life;

- that we will not implement and accept reasonable development controls to that end;
- that on the other hand we will continue to put in place tourism "attractions" which are completely at variance with and do not respect Island heritage, history, and culture, as we have so frequently done in the past;
- that in terms of movement this whole debate will have been for naught, with no cultural outcomes except a reinforcement of the rancour and ill will which has often characterized public debate in this province.

Those outcomes, too, are consistent with our way of life.

I believe that public officials, elected and appointed, at all levels of government, community interests, industrial bodies, public service organizations, and individuals in leadership positions must act in concert to ensure that changes in our way of life will be positive and progressive, fixed crossing or not. The fixed crossing will only make such an effort more imperative. The protection of our culture and our heritage cannot be left entirely to industrial and commercial interests, or to the blind course of social change. I hope that the Panel will address this important issue if its report recommends that the crossing project be undertaken.

And now, Mr. Chairman and Panel Members, I wish to make my final point.

More than 100 years ago PEI society was shaken by a number of major social changes. Within a space of only twenty years, Prince Edward Island:

- lost its newly-found political autonomy because of its railroad debt, and had to adjust to a minor role within the larger Canadian community;

- it experienced the collapse of the prosperous ship-building industry and the rapid emigration of thousands of its citizens;

- it had to create new institutions to deal with the ending of the hundred-year-old tenancy system, and to heal the deep social frictions and divisions which it had caused; and

- it had to endure a bitter and divisive religious and political struggle over the issue of public education, which established a tone for inter-faith relationships on PEI for the next one hundred years.

These were major crises which happened to the Island within the very short period of one generation, and yet the people of those days were able to sustain an Island way of life which has been our legacy.

It is therefore very difficult for me now to accept that, in our time, the Island way of life will not have the strength to survive a bridge to the mainland.

Mr. Chairman and Panel Members, my purpose in speaking has not been to make the case for or against the fixed crossing, but solely to share with you these results of my reflection. In my judgement, the issue of the Island Way of Life does not seem to be substantial in relation to a decision on the construction of a fixed crossing. Of all the factors impinging on your decision, the survival of the Island Way of Life should not weigh heavily upon you. It will survive, wonderfully.

PRESENTATION

To

THE ENVIRONMENTAL ASSESSMENT REVIEW PANEL

By

PROFESSOR J. IVAN DOWLING, Department of Mathematics and Computer Science, University of Prince Edward Island.

PROFESSOR FREDERICK L. DRISCOLL, Department of History, University of Prince Edward Island.

PROFESSOR ALLAN F. MACDONALD, Department of Sociology and Anthropology, University of Prince Edward Island.

PROFESSOR JOSEPH J. REVELL, School of Business Administration, University of Prince Edward Island.

March 29, 1990

It is hardly necessary to say that the recommendation the Panel is asked to make regarding the building of a Fixed Link places in its hands, in a very large way, the future of the Province. It is an enormous responsibility, and we wish the Panel well.

The authors of this Presentation have been born here, raised here, educated here and elsewhere, and have returned here to live our lives. We have been part of the way of life of this Province, have lived it, cherish it, try our best to understand it, and want to see it live and flourish. That way of life, and the effects of a Fixed Link upon it, is the subject of this Presentation.

Our message is a very simple one:

> WE REJECT COMPLETELY THAT VIEW OF OUR PAST AND PRESENT WHICH IMPLIES THAT OUR WAY OF LIFE CAN BE PROTECTED ONLY BY RETREAT AND SECLUSION. THAT WOULD BE TO REJECT OUR PAST, NOT TO BUILD UPON IT. THAT WOULD BE TO DENY OUR HISTORY, NOT TO AFFIRM IT, TO UNDERSTAND IT, AND TO ACCEPT IT. ISLANDERS HAVE WELCOMED CHANGE, ADAPTED TO IT, MANAGED IT, SUCCEEDED AT IT, AND YET REMAINED THEMSELVES. WE ARE TOTALLY CONVINCED THAT THEY CAN DO THE SAME WITH A FIXED LINK.

We do not suggest that the Fixed Link should be built at any cost. Like so many others, we are concerned about the environmental effects. It is not possible to think that there will not be environmental effects. Every time a house, a shopping mall, a highway, a factory is built, the landscape changes. The only question to be answered is whether the environmental effects, or the consequent socio-economic dislocation, would be so great as to be either unacceptable or impossible to manage. We must leave the determination of its environmental acceptability to those truly expert in the field. We do believe, however, that the socio-economic effects of a Fixed Link are manageable.

This Presentation offers an analysis of the implications of a Fixed Link for the Island "way of life." To make for clarification and understanding, we locate this way of life in a cultural context - that of the Canadian people.

The essence of any culture is its central and dominant values - its value system. Any social or cultural value is a conception, distinctive of a person or group, of what is good and desirable. The central values of a society pertain to the important things in human and social life - those things which are seen to be good and desirable about the human person, the family, the political order, the economy, the educational system, the religious institution, indeed the whole of existence.

Clearly, the people of Prince Edward Island interact with the other people of the Country in commitment to, and in living, the central values of a broad Canadian culture. As Canadians, we have shared, and we continue to share, in the generation, the transmission, and the preservation of this culture. That is our heritage and destiny as Island Canadians, and of such we are eminently proud.

But far from being uniform or monolithic, Canadian culture allows for variations. It encompasses a myriad of subcultures, whether geographic, ethnic, religious or economic in origin, each with its distinct characteristics and uniqueness.

The Island way of life simply refers to the Island subculture. While the people of this Province participate in the broad Canadian culture, we do so in an "Island" way and with a certain distinctive style of life. Understandably, we prize the positive aspects of Island life and we seek to preserve them. But there are negative aspects and we have an obligation to identify and seek to eliminate them.

Generally, cultures and subcultures, and their values, are preserved, transmitted or changed, primarily by the various agencies of socialization and education, and by the communication of ideas and beliefs. If these are properly operative in a society, people can adapt to technological change and at the same time preserve those values, traditions and lifestyles that are central to their culture. Technological change does not change the value system.

The establishment of a Fixed Link can now be related to this cultural context. A Fixed Link represents the introduction of a major technological change, one creating a notable advance in mobility and transportation. What are the implications of such a change for the Island way of life.

Our past is filled with vigorous, dogged, often frustrating attempts to replace out-dated transportation systems with the most modern and efficient available. While awesome in its technology and in its presence, the Fixed Link must be viewed as just another step in an historically consistent process.

To those who insist that the benefits of such a step be specifically defined, new jobs and industries identified, dollar signs placed on smokestacks, and the new utopia given a name, we say that they ask questions that cannot be answered, nor need they be.

Rather, we say with the utmost confidence, confirmed by decades of studies and research, that civilization has depended upon improvements in transportation for its growth and development. Where such improvements have been significant, societies have been enhanced culturally as well as economically, and barriers have been overcome which previously had been seen as insurmountable.

Our own history illustrates that the railway, the automobile, paved roads and airplanes each brought important changes to our culture and to our economy. Often, these improvements were greeted with protest, and fear that the Island way of life was threatened - although the protest may not have been in such strident tones as those that greet the Fixed Link. Nevertheless, the changes were accommodated and put to the use of Islanders by Islanders.

A Fixed Link will bring some social and economic dislocation. Societies are not frozen in time, and any change brings dislocation. We must predict those changes as well as possible, grasp those that are progressive, and take immediate action to find solutions to the inevitable difficulties and dislocations which will result. Some of these have already been identified.

The CN Marine employees and the Town of Borden will be most directly and immediately affected. It must be clearly recognized, that while employment dislocation cannot be the determining factor in a project of this importance, there is an equally important obligation to mitigate the effects of such dislocation. The efforts required to do so must be pursued with full commitment by all levels of government. We know that Islanders will not accept less for their fellow citizens, and we know that it can be done.

Some research may suggest that there will also be significant impacts on land usage and values. If these occur and are deemed undersirable, then surely the answer is in the use of appropriate instruments of public policy. Many mechanisms of such policies are already in place. In fact, this Province is widely recognized as a leader in land use regulation and in concern for its environment. There is no reason to fear that we could not deal effectively with the impacts of this project.

While we must anticipate and plan for such impacts, we must also be sure that they are kept in perspective. We are still adjusting to significant events of the past decade. The move of 700 Department of Veterans' Affairs employees to Charlottetown, the presence of demoic acid which threatened to destroy our mussel industry, and now the closure of CFB Summerside, have all brought their own challenges to our economy. There have been others and there will be more. To each there will be an appropriate response. There is nothing of which we are aware that should make us less than confident that Islanders can respond to the challenges of a Fixed Link. Islanders have always confronted the future with confidence. They have never been so insecure as to seek to avoid it.

CONCLUSION

The Panel has heard many views from many individuals and groups. Many of those views have represented particular interests. We urge the Panel to give special consideration to the opportunities a Fixed Link will provide the vast majority of Islanders: those who are engaged in our primary industries; those who are unemployed or underemployed; those who live on low incomes; those who are on welfare. They, too, share in a way of life. But for them efficent transportation is not merely a convenience to be used at their leisure, or to be charged to expense accounts. For them, better transportation can mean better incomes, better access to markets, better profit margins, increased job opportunities, - in short, it can mean a fuller sharing in a way of life.

We urge the Panel not to become the guardians of the Island's soul. That is for Islanders to guard in their own way. They have done that in the plebiscite of 18 January, 1988. But if the Panel chooses to save us from ourselves, let its decision rest on a proper understanding of that soul - that way of life.

We have suggested that the Island community has something called a way of life in the sense that many other communities in this Country have a way of life; it is one of many sub-cultures that exist in the larger community-Canada.

> WE HAVE SUGGESTED THAT THE ESSENCE OF A WAY OF LIFE IS ITS VALUE SYSTEM, ITS UNIVERSAL VIEW, ITS VIEWS ABOUT THE ORGANIZATION OF SOCIETY, INDEED ITS VIEWS ABOUT MAN HIMSELF. ECONOMIC AND SOCIAL STRUCTURES CHANGE, BUT THE WAY OF LIFE REMAINS, EVEN IF IN DIFFERENT CIRCUMSTANCES. IT IS NEVER SO FRAGILE THAT IT MUST BE PRESERVED IN A MUSEUM.

That is why Islanders have been able to be aggressive, progressive, imaginative, resourceful and creative in adapting to and mastering change, while all the time retaining a way of life. The things of the spirit are constant.

Environmental Assessing Panel Reviewing the Northumberland Strait Crossing Project

My name is John M. Mulligan. I am appearing here today in support of the fixed link between Prince Edward Island and the mainland.

I am motivated to make this presentation by the news reports that I have seen regarding your hearings. I am concerned that people in favour of the link are not coming forward to present their support for the project.

As an opening comment, I would like to say that in the late 1960's I was the auditor of the consortium of companies that studied the crossing project at that time. Because of my involvement, I was aware of various options that were presented and the progression of the studies and estimates that took place at that time. As you are no doubt aware, the reason we didn't have a crossing which was estimated to cost less than $400 million and would most likely be paid for by now, is because the politicians of the day believed that the people of Prince Edward Island wanted to continue having a railway system and therefore the studies were extended for two to three years and when the final estimates came in, the cost was seen to be prohibitive. As we sit here today, I am sure you are all aware there is no operating railway system left on Prince Edward Island.

I am well aware that a fixed link will create changes in our society, and in our Island way of life. One change which I hope it will make is that our Island way of life will not continue to involve the concern and scheduling that it now necessary in order to leave and return to Prince Edward Island. Any Islander knows that the minute he makes a decision to go anywhere on the mainland, the first consideration he will have is what time he is going to go, what boat he will catch, whether there will be a line-up, how long it will take him to get to the other side, and his second consideration will be what time is he going to come back and what boat is he going to catch, etc.

I consider the construction of the fixed link between Prince Edward Island and the mainland a natural evolution of our transportation system. My father could remember and talk to me about the ice boats that crossed the strait prior to the commencement of the ferry service in 1917. My first trip across the strait was by train in the early 1940's and while there was vehicle traffic at that time, it was a very minor part of the ferry service because the trains were still a major part of the transportation system used by the residents of Prince Edward Island. In 1988, according to the bridge concept assessment, 660,000 passenger vehicles and 141,400 trucks used the ferry service. In 1990 there will be no railway traffic using the service.

I believe that it is only common sense to realize that unless we have a fixed link to the mainland that before too many years have passed, Prince Edward Islanders and visitors will be making reservations to use the ferry service. I don't believe that that kind of a connection system would be acceptable.

I presume that your job in reviewing the environmental concerns regarding the construction of the fixed link would be to balance the needs of people with the environmental needs and to make sure that the planning for the crossing would include the proper precautions and safeguards to avoid any environmental disasters. I would contend, however, that progress means change and change to a degree means some risk. I am sure that when the ferry service was started in 1917 there were people who believed that the ability to drive to and from Prince Edward Island or to take a train to and from Prince Edward Island would ruin the Prince Edward Island way of life. Certainly the P.E.I. way of life in 1917 and in the 1930's and early 1940's is very different than the P.E.I. way of life today and I am quite certain that the P.E.I. way of life today will not be the P.E.I. way of life 25 years from now, whether a fixed link is built or not. The majority of human beings believe in progress and progress we will have whether we want it or not. The only way we can avoid the rest of the world is lock ourselves in a dungeon and starve ourselves to death. I would hope your panel will listen carefully to the presentations and sort out the ones that are based on unfounded fears, unrealistic expectations of the future or impossible dreams, on concerns that are going to be temporary in nature and not longlasting, and use your good common sense to approach the degrees of risk that have to be taken to have progress.

As I said to one person who was against the fixed link, I am proud to be a Prince Edward Islander. I have lived here all my life. I think Prince Edward Island is a very beautiful and wonderful place to live and to work and to enjoy oneself. Even though a fixed link will make Prince Edward Island more available to other people and it may well make it a little less available to me, I am quite prepared and willing to share P.E.I. with anybody and to compete for my place within Prince Edward Island. In my view, myself and many other Islanders won't be a bit afraid to stand up and make sure that anybody who does come to P.E.I. conducts themselves the way we believe Islanders should

In closing, as a business person I am quite aware of the effect the costs and restrictions that the isolation and the transportation problems have had on the Prince Edward Island economy - in tourism, in fisheries, in agriculture and other related Prince Edward Island economic activities. There is nothing whatsoever in any of the studies or proposals that I have seen regarding the fixed link to indicate anything but long term benefits to the economy. I firmly believe that the fixed link will open opportunities to our economy that we have never ever had in the past.

I am sympathetic to the ferry workers who will be displaced. However, we surely wouldn't continue a war to keep the soldiers employed. Instead, we need to establish a system to support the displaced people like DVA for veterans. We don't need to continue the war of getting to and from P.E.I.

I want to thank you for listening to me and if anyone has any questions, I would be pleased to answer them. Thank you.

JOHN M. MULLIGAN

BACKGROUND

John Mulligan is Managing Partner of our Charlottetown office. He qualified as a chartered accountant in 1961 and is a former president of the Prince Edward Island Institute of Chartered Accountants.

As the Managing Partner and Tax Partner in Charlottetown, Mr. Mulligan has overall responsibility for engagements as well as providing client officials with a direct and efficient access to our assignment team and corporate resources as necessary. Mr. Mulligan has conducted these tasks on numerous assignments related to the various economic sectors on Prince Edward Island, including: the service industry, fisheries, agriculture, tourism, manufacturing and processing.

SELECTED PROFESSIONAL ASSIGNMENTS

Crown Corporations

Through the firm's audit and financial services, Mr. Mulligan has been responsible for a number of audits of crown corporations, including:

Audit for the P.E.I. Development Agency, a crown corporation created by the Prince Edward Island government to assist in the development of locally produced goods and services.

Audit for the Charlottetown Area Development Corporation. This corporation is responsible for securing and developing land in and around the province's capital.

Partner-in-Charge for the audit of the Municipality of Parkdale.

Partner-in-Charge of the audit of the Charlottetown Water Commission.

JOHN M. MULLIGAN

SELECTED PROFESSIONAL ASSIGNMENTS

Others

Chairman of The Prince Edward Island Government Expenditure Review Commission. The Commission reviewed and reported to government on expenditure policies and programs at all levels.

Mr. Mulligan has also been responsible for a number of projects related to other sectors of the Prince Edward Island economy.

PROFESSIONAL AFFILIATIONS AND ACTIVITIES

- Finance Committee chairman of the Roman Catholic Diocese of Charlottetown
- Queen Elizabeth Hospital Chairman - corporate and business gifts - CatScan campaign
- Member of Canadian Tax Foundation
- Past-Chairman, Board of Governors, Saint Dunstan's University
- Past Provincial Treasurer of Charlottetown Rotary Club
- Past chairman Easter Seals Committee
- Past member of P.E.I. Veterinary Practice Advisory Board
- Former member of Board of Governors of Canadian Institute of Chartered Accountants
- Former member of Board of Directors of Atlantic Provinces Association of Chartered Accountants
- Former president and treasurer of Belvedere Golf & Winter Club
- Former president of P.E.I. Golf Association
- Former treasurer of Occupational Training Centre
- Former member of Charlottetown City School Board
- Former member of Unit 3 School Board Planning Committee
- Former member of the Planning Committee and Board of Queen Elizabeth Hospital
- Former chairman, Board of Management, Charlottetown Hospital
- Former lecturer for Canadian Bar Association Tax Course I

rec'd
Mar. 6/90

PRESENTATION ON
THE TERRESTRIAL IMPACT RELATING TO THE
NORTHUMBERLAND STRAIT CROSSING PROJECT

Submitted by -

Wayne Ellis, President,
Prince Edward Island Real Estate Association

Date: March 29, 1990

The Prince Edward Island Real Estate Association has gone on record as supporting a fixed link between Prince Edward Island and mainland New Brunswick. We continue to support this position.

In our view, Public Works Canada has adequately taken every step to ensure that the environmental concerns that might face us have been carefully addressed and we therefore submit that now is the time for positive action in getting construction started.

The Prince Edward Island Real Estate Association represents the interests of over 200 Real Estate professionals, all of whom are deeply concerned about the economic future of this Province. Our membership is aware that if this Island is to meet the year 2,000 head on, in a spirit of anticipation for improved growth, development and the hope of even greater prospects for maintaining, sustaining and indeed improving our way of life, that one major element has to be addressed and in fact overcome and that, we feel, is transportation and the need to become connected to the mainland by way of a fixed link.

Granted, the prospects of being within minutes of the mainland can make one anticipate many changes, changes which we feel can have a positive impact on our whole socio economic development as an Island and as a people.

The construction of this mega project will provide many jobs and pump literally millions of dollars into our economy through the purchase of goods and services during the construction phase alone.

Islanders need jobs. In addition the fixed link will help pry open the eyelids of industrial interests who will, no doubt, look at us more favorably once a more convenient and indeed a more time saving transportation link with the rest of Canada is in place.

The business community will benefit. The tourism industry will benefit. The agricultural and fisheries industries will benefit inasmuch as mainland markets and transportation to these markets will become more accessible. In fact, we feel there will be a spinoff benefit to all Islanders.

We anticipate greater investment opportunities will open up and yes, there will likely be an increase in property values as well as a greater demand for new land developments, new housing and recreational properties. Everyone on Prince Edward Island, either directly or indirectly, will benefit from this project.

A better economy can result in a better life for all Islanders, a life which could be filled with greater security from knowing that opportunities for more permanent jobs are now closer than they once were. Security once again in knowing that our children may well be able to create a livelihood here for themselves rather than being forced to seek opportunities in other places beyond our shores.

All of this can come about without having a negative terrestrial or natural environmental impact. Environmental concerns have to be strongly regarded insofar as new developments are concerned and this can be and in fact is being done.

Government is constantly monitoring environmental needs insofar as our natural environment is concerned. Proper zoning regulations coupled with a keen concern for land uses and controls on environmentally sensitive areas are required now and we feel the increased awareness of the need to protect our environment by the general public will well diminish any adverse terrestrial impact a fixed link may be perceived to create due to new developmental growth and increased traffic to our Island .

The benefits of having a fixed link, in our view, so far outweigh the negative concerns being expressed, that we feel more than enough time has already been spent simply talking about this matter....Let's get on with it while it's still economically viable to do so.

Transportation has always impaired our chances for steady growth and development. We now have a chance to turn the tables on this so let it be done.

-3

The days of the ice boats bringing passengers and mail to and from the mainland are long gone, replaced by a much more effective means of transport, the ferries. This mode of transport has done a relatively good job for us over the years despite its limitations. However, if we are to keep up and meet the challenges put before us in the 1990's and indeed on into the 21st century, we must " link-up " or be prepared to watch the rest of the world pass us by.

We are looking forward to a new tomorrow, a tomorrow which will provide us and our children with a better and much improved Island way of life; to a tomorrow where new opportunities become available; where new generations of Islanders who wish to remain on this precious land of ours can do so knowing full well that through their own initiative, determination and hard work they can carve their own livelihood and future here, at home, rather than being forced away due to lack of economic and social opportunities.

There have been studies conducted on this proposed project; studies which conclude there will be a limited impact on our natural environment; studies which show us that such a project is both feasible and reasonable.

Now that we have the studies and the studies of the studies, I can only suggest, to use the immortal words of the great English Statesman, Sir Winston Churchill, " we must go forth in discharge of our mission and our duty fearing God and nothing else."

Let the Link become a reality. Let the Link not only join two masses of land but also provide Islanders with the connection to a more promising and productive future as we look with hope and anticipation to the second millennium.

Truckers pay heavy price just trying to make living

By John Lewandowski

MANSEAU, QUE. (CP) — Inside the brown upholstered cab lined with family snapshots and smelling of sweat and cigarettes, Emmylou Harris is singing — something about love gone cold.

Her sad, melodic voice rises above the rumble of the diesel engine and the static-charged bursts of chatter from a citizens-band radio.

Leaning over a steering wheel the size of a small hula hoop, Elwin Green, 42, takes a swig of black coffee and fires up another smoke.

"Sometimes you listen to the music, sometimes you hear it," says the lean, bearded Green, whose tired face reflects every one of his 18 years on the road.

"You got a lot of time to think."

Time moves slowly as Green steers down the highway in his Western Star tractor trailer. He has just left his girlfriend's place in Saint John, N.B., headed for Montreal to pick up a load of machinery for a new paper mill in Moncton, N.B.

HARD ON FAMILY

Bending forward to check heat and air-pressure gauges, he shifts into overdrive through a maze of 13 gears and reflects on the price some drivers pay for living in their rigs.

The big trucks have run over a lot of marriages.

"Life on the road puts a strain not only on the guy that's running the truck but your family at home — you can't tell them exactly when you're going to be home," says Green, a divorced father of three.

"You want to be there but you find yourself heading another 500 miles west before you can turn around. It's possible those miles will mean you can make this month's truck payment."

Some drivers fall into the bottle and can't climb out. Others start "chewing pills" — truckers' slang for taking amphetamines, to help them stay awake as they cover tedious stretches.

Many share Green's frustration. It's getting harder to make a living. In good years he has billed as much as $160,000. But, he says, he doesn't expect he'll see that kind of money again.

MORE ON ROAD

"There are just too many God damn trucks on the road," complains Paul Dobson, 49, of Saint John as he scoops up another forkful of mashed potatoes at a truck stop outside Manseau, Que., just off the Trans-Canada Highway halfway between Quebec City and Montreal.

"You get people trying to kick each other to death trying to take freight and consequently it gets hauled up the road for nothing," says Dobson.

A 32-year veteran of overnight hauls and 15-hour days on the road, Dobson says more trucks mean fiercer bidding on jobs, resulting in lower rates. Deregulation of the industry is opening up the roads to more rigs as big trucking firms get bigger.

Idle CB chit-chat and jokes shared over coffee at roadside counters now seem to carry an uneasy edge.

The tension brought about by increased competition also surfaces in a drivers' lounge in Montreal as a young driver turns the air blue, describing how some guy in an empty gasoline tanker cut in front of him.

His right front fender is shattered and his radiator bent back from slamming into the tanker's rear end.

"That son of a bitch jumped in front of me a couple of times for no good reason," he says, waving a piece of shattered fibreglass for all to see.

He is already calculating the cost of getting his rig repaired and how many trips he'll lose while it's in the shop.

LIFE ON THE ROAD

COSTS HEFTY

Big rigs are big money.

New highway tractors can run between $80,000 and $120,000. Many come with the latest in technology including cellular phones, fax machines, satellite receivers, even microwave ovens.

The majority of drivers own their rigs and contract their equipment and services to trucking firms for a percentage of the freight fee or a mileage rate.

But although they may bill over $100,000 a year, many truckers see an income of about $30,000 or $35,000 after deducting their expenses.

"You see some guys paying as much as $3,500 a month for their rigs," says Green, who is owner-operator of his truck. "The average guy would go through about $3,500 a month for fuel."

Green and Dobson both like driving. But they'd get off the road if they could afford it. Right now, they can't afford to sell.

The lots are full of used and repossessed trucks at cut prices.

"Financially it's not anything that's good any more," says Dobson. "Just too much work, too big an investment, too many headaches. All it is is a job."

Green would leave in a minute if he could.

"If I was in Toronto today and somebody offered me a good dollar to take that truck and trailer, I'd take part of the profit and buy myself a plane ticket home."

Hints for car drivers on sharing highway

By The Canadian Press

Like it or not, cars and tractor trailers have to share the roads.

And that can be dangerous, unless four-wheelers — that's what truckers call car drivers — take a few things into consideration.

Full tractor trailers can weigh up to 50 times more than a compact car. All that extra weight means 18-wheelers can't stop on a dime.

Here are some tips from truckers on how car drivers can increase their odds of sharing the road safely:

— Don't cut off a tractor trailer. They need much more room to stop — almost double what a car requires.

— Watch their signal lights. Truckers often have to swing left first before making a right turn. Cars that try to pass at this point can find themselves squeezed into telephone poles.

— Avoid passing on the right on multi-lane highways. Tractor trailers have a blind spot on the right, just behind the tractor. Small cars, especially, can be invisible to the trucker.

— If you must pass on the right, do it quickly and give the driver a signal. Flash your lights or honk your horn.

— Give trucks extra space. They are bigger than you are. And chances are if the two of you tangle, you'll suffer the worst damage.

It has now become clearly evident that a total lack of meaningful leadership from Ministeries of Transportation and Environment over the past 40 years has now culminated in the grievous dilemma currently facing us respecting long-haul movement of bulk cargoes over our highways. NEVER but NEVER should any form of Fixed-link structure be acceptable that can only serve to perpetuate this folly throughout the next century! Bridges as currently proposed are entirely deficient in this respect.

M. B. Lodge

Larger trucks set to hit highways as result of industry deregulation

By Ron Sudlow

VANCOUVER (CP) — Diesel exhaust and fumes snort from twin blackened stacks with each gear change.

Tractor-trailer combinations roar and whine as they manoeuvre through mountain passes like ponderous circus elephants linked tail to trunk.

Then they accelerate to the speed limit just when you reach the passing lane.

When it's wet, grey spray from 18-wheelers washes over your windshield, momentarily blanking out the highway ahead.

But other than being irritants — or worse — on the road, the $24-billion trucking industry is taken for granted by most Canadians, despite its pervasive role in their lives.

The 150,000 freight trucks on Canadian highways haul everything from lettuce to lampshades.

"There isn't a thing that you're wearing, the supper you had last night . . . somewhere along the piece, if you've got it, a truck brought it," says George Lloyd, general manager of CP Bulk Systems.

But the Canadian trucking business is encountering headwinds.

BEING DEREGULATED

The industry, with 185,000 employees, is on a five-year haul to deregulation that began Jan. 1, 1988, although most barriers to competition for freight have gone.

While there are varying degrees of regulation within provinces — starting at virtually none — deregulation gives truckers the freedom to decide what services they will offer and at what price.

Most routes are no longer exclusive to a specific company. Only Manitoba and New Brunswick rigidly regulate trucking within their boundaries.

Yet to be resolved is a national safety code which, among other things, controls drivers' hours. While 80 per cent of trucking is federally regulated, not all provinces observe the federal limit of 60 hours at the wheel over a period of seven days.

The last five years — with deregulation either in effect or companies preparing for it — has seen more small operators entering trucking and increased mergers among the big players.

An equal number of independent truckers have left the business and more companies have turned off their diesels for good in the face of stiffer competition.

"We've had some spectacular failures," says Ken McLaren, spokesman for the Ottawa-based Canadian Trucking Association, which protests that deregulation has created instant free trade for U.S. carriers. Deregulation of U.S. trucking began in 1980.

MID-SIZE CRUNCH

Lloyd, a 57-year-old executive with a shock of wavy white hair, began as a P and D (pickup and delivery) driver for CP Rail in 1951. Today, he directs the movement of millions of tonnes of bulk goods from an office overlooking British Columbia's busiest strip of freeway.

He says small companies should survive by remaining small. Large ones will consolidate, "but the ones in the middle are really in a bloodbath and they're being eaten up."

Consultant Garland Chow says the elimination of regulatory shackles has not brought lower rates for shippers. But tariffs have not risen for two years while truckers have been squeezed by increased costs and intense competition.

Chow, a University of British Columbia associate professor specializing in transportation, also says there aren't more trucks on the road. But they're on the road more often, hauling longer distances.

"It seems like there are more companies there, but it's only more companies going into your territory than before," adds John Pringle of the policy and programs branch of Transport Canada.

LIFE ON THE ROAD

He says the industry as a whole "is still quite profitable" but can be seasonal and generally mirrors the Canadian economy.

When the former CN subsidiary Route Canada closed after being sold to private interests, there was a feeding frenzy for its business.

"The traffic volume was just swallowed . . . eaten by the others with no visible impact," says Lloyd.

BIGGER TRUCKS

Chow says trucks and their trailer combinations will get bigger in the '90s as companies seek economies of scale. The trend, vigorously opposed by auto clubs, is already developing in the United States.

But Chow expects large rigs to be eased out of traffic-choked cities or to enter only at night on designated routes. Noxious diesel fuel could be replaced by cleaner methanol.

That's down the road. What's around the corner is concern over safety.

Truckers made front-page headlines in two spectacular accidents in 1989.

Twelve people died in Cormier Village, N.B., when a log-laden tractor trailer hit a haywagon and two pickup trucks crowded with people on a family outing. Five died in Kamloops, B.C., when a runaway flatbed truck carrying steel rods crunched a dozen cars.

A loaded semi with a total weight of 63,500 kilograms has a decided survival advantage in an accident.

One survey showed that the chance of an automobile occupant being killed in a collision between a subcompact car and a large truck is about 50 times greater than in a collision between two sub-compacts.

"You can trace (serious accidents) back to deregulation where virtually anybody can get a truck and pass minimal standards and be in the business," says Lloyd, who is also president of the B.C. Trucking Association. "The small guys want to cut corners."

TOO CAREFREE

Lloyd partly blames the romance of trucking, the CB slang, the knight-of-the-road image for attracting the wrong people — the guy who quits a sawmill job, puts a down payment on a tractor and has his wife do the bookkeeping on the kitchen table.

"They bring some poor driving habits and bad attitudes and a loose, carefree way of doing what is a very serious business."

Chow also says near-bankrupt trucking companies have no incentive to operate safely and those just entering the business don't know how to meet all the regulations.

"There's a learning curve to safety."

But for Canadian truckers, the major worry is economic. McLaren of the Canadian Trucking Association looks at the open border and says U.S. truckers have cost advantages of nine to 12 cents a kilometre through lower taxes and more generous depreciation allowances.

It's especially tough in Ontario, where 70 per cent of Canada's transborder truck traffic originates.

"They're beating us on our own highways."

Schweizerische Bundesbahnen - Generaldirektion
Chemins de fer fédéraux suisses - Direction générale
Ferrovie federali svizzere - Direzione generale

Generalsekretariat
Secrétariat général
Segretariato generale

SBB CFF FFS

Mr.
Maurice B. Lodge
13 Sydney Street
Charlottetown, P.E.I.
C1A 1G1

Ihr Zeichen Votre référence Vostro riferimento	Ihre Nachricht vom Votre correspondance du Vostra corrispondenza del	Unser Zeichen Notre référence Nostro riferimento	Bern
		GS 26	28.2.1990

Inquiry about a 50 km rail tunnel through the Gotthard Mountain range

Dear Mr. Lodge

Thank you for your interest in the various projects of the Swiss Federal Railways (SBB). The Swiss railway system -- it includes also a great number of private railway companies -- has experienced a renaissance during the 1980s. During the previous two decades large sums of money were spent on the construction of an efficient highway-system; but the steadily growing traffic volume and a new environmental consciousness have led to new approaches about how to cope with traffic in the next millennium. Moreover, the elimination of all trade barriers within the European Community in 1993 is expected to cause an additional increase of freight traffic, especially in the north-south direction through the Alps.

Switzerland attempts to meet the expected increase of traffic as well as possible. Three major projects have reached different stages of development:

1. **Rail 2000** will considerably improve frequency, speed, connections, and comfort of the Swiss train and bus services. (Details in eclosed article.) The project has in part reached the construction phase. However, the local population confronted with the construction of new tracks has mounted resistance, thereby causing costly delays.

2. **Piggy-back-corridor** (Huckepack-Korridor): This is a short term measure to treble the piggy-back capacity of the two main tunnels through the Alps (Gotthard, Lötschberg). The task includes the enlargement of the tunnels' diameter to accomodate any standard-size trucks. Construction has just started. (More information in the enclosed article.)

3. **New Transalpine Railway Tunnel** (Neue Eisenbahn-Alpentransversale): This is probably the project referred to in your newspaper clipping. However, the new tunnel connection through the Alps is far from being comleted; in fact, it has

not even passed all the administrative hurdles. The Swiss Federal Council (executive) favors the project, but the parliament still has to approve funding. As for now, cost estimates vary considerably. And if the the parliament actually approves the credits for the construction, 50 000 Swiss citizens can demand a national referendum on the credits. Further, as every region of the country wants to benefit from the new fast link through the Alps, there is a debate going on from where to where the tunnel actually should be built. As you can see, the date of completion will be uncertain for some time to come.

Now a few details concerning the tunnel. You mention the number of 600 daily trains crossing the Alps after completion. This is partially correct. The capacity of the new base tunnel will be roughly 300 trains per day in both directions together. An additional 300 trains are expected to use the second base tunnel through the Loschberg mountain. Both together will then have the capacity of 600 trains per day. In your second question, you ask whether the proposed length of 50 km is correct. Yes, it is. However the tunnel might even get longer if plans have to be redrawn due to popular demand. Particularly the local population near the tunnel exits fights for extended unterground tracks. To your third question: Building the tunnel is not the only thing. If the tunnel's capacity is designed to allow 300 trains per day, rail line approaches and freight yards will also have to be adjusted to cope with the new tunnel capacity. The costs of those adaptions are almost as high as the price of the base tunnel(s) itself(ves).

I am not able to provide you with any information concerning a comparison of railway shuttle car designs. The height of large trucks has been a problem for some time. The size of the tunnels through the Alps -- most of them built over a hundred years ago -- was not designed to fit big trucks. That's why we have come up with a temporary solution -- the so called "piggy-pack corridor" until the base tunnes are completed. The new tunnel(s) will have a profile large enough to accomodate even big trucks from the start.

I hope to have answered your questions.

With kind regards

Press Service SBB

Christian Kräuchi

Swiss mastermind intermodal strategy

As Switzerland gears up to start building two base tunnels, an action programme to treble piggyback capacity will see jumbo trains introduced on the Gotthard route and 4 m high lorries accommodated in the Lötschberg tunnel

INGENUITY AND A CLEAR VISION of transport needs in the next century characterise Switzerland's approach to the mammoth task of moving road vehicles through the Alpine barrier, be it in car-carrying shuttle trains or in piggyback services for lorries.

In the last few years the tiny Alpine country at the crossroads of Europe has come under intense pressure from the surrounding European Community countries to relax the 28 tonne lorry weight limit on its roads. Switzerland's refusal to give way has shunted the problem to Austria, where the motorway over the Brenner pass is saturated by a stream of lorries passing to and from Italy. This has triggered a tide of protest which has forced Austria's transport minister to introduce a night ban on lorries over 7·5 tonnes from December 1.

Extra piggyback trains have been scheduled through Austria this month to keep the lorries moving, and plans to raise piggyback capacity through Austria, culminating in construction of a Brenner base tunnel, are being debated in the transport ministry. While those discussions continue, Austria's plight will be eased over the next few years by Switzerland's decision to implement immediately a programme to treble piggyback capacity by 1994.

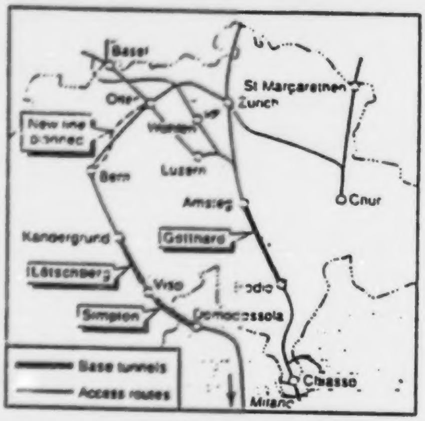
Funds for the SFr1·46bn programme were originally destined to kick off the NEAT (Neue Eisenbahn Alpentransversale) scheme, now costed at around SFr10bn, which will see two base tunnels opened in the early years of the next century. Although NEAT is running to schedule, Swiss Transport Minister Adolf Ogi judges that there is no time to lose if the Alpine lorry problem is to be mitigated.

Jumbo piggyback trains

The lion's share of the SFr1·46bn is allocated to the Gotthard route, which can already accept 3·8 m high piggyback lorries. There being little possibility of squeezing extra trains through the Gotthard tunnel, Swiss Federal Railways plans to raise piggyback capacity by operating jumbo trains 700 m long, similar in length to the Channel Tunnel shuttle trains. This will require special loading terminals to be built, probably near Wohlen on the Aarau – Arth Goldau line and at Basel.

SBB envisages that the jumbo trains would run directly to a new terminal at Busto Arsizio north of Milano, but in case this proves impractical, SBB is examining the feasibility of sandwiching a terminal into the already cramped yard at Chiasso.

SFr720m is to be spent on the two terminals in Switzerland and on a range of infrastructure improvements. These will include construction of an overtaking loop at Erstfeld, double tracking from Brugg to Othmarsingen, and strengthening of power supplies on the Gotthard main line. Signalling will be improved on key access routes, and provision for bidirectional working will be made on the Bözberg tunnel route between Frick and Brugg, between Erstfeld and Flüelen, and from Bellinzona to Chiasso.



The SFr10bn NEAT programme envisages opening of the Lötschberg and Gotthard base tunnels by 2005 and 2007 respectively; a Simplon base tunnel awaits agreement between the Swiss and Italian governments

Almost half the Gotthard allocation, SFr620m, will go on a fleet of 90 locos derived from the Loco 2000 design (p893). Two locos will haul the trains from northern Switzerland to Erstfeld, where a third will be attached to lift them over the 2·7 per cent grades on the Gotthard approach ramps.

Hupac, the Swiss intermodal company, will expand its wagon fleet from 800 to 2 000 by 1995 to cater for the growth in traffic. Extra wagons are not included in the SFr1·46bn of government funds, but will be paid for by Hupac. Once the locos and wagons are delivered and the infrastructure improvements are completed, annual piggyback capacity on the Gotthard route will rise from 160 000 lorries to 360 000.

Lötschberg to take 4 m high lorries

At present piggyback trains do not use the Bern – Lötschberg – Simplon route, but capacity will become available once the massive double-tracking project is completed next year. Equally crucial is the need to provide adequate clearances, and when this has been done, the route will be able to handle 105 000 lorries a year.

SFr125m has been allocated towards introducing piggyback services on the Lötschberg line, but the Swiss government is adamant that EC countries must agree to the 28 tonne lorry weight limit remaining in force before it will release these funds.

Whereas the maximum lorry height accepted on the Gotthard piggyback services will be 3·8 m, the BLS will be able to take vehicles 4 m high. To achieve this an ingenious way has been found of adding an extra track in the Lötschberg tunnels.

Some BLS tunnels were built with only part of the space for the second track excavated, and the opportunity was taken during double-tracking work to lower the formation by 150 mm. Elsewhere, a ballast cleaner will be used to lower the track the same distance. Special wooden sleepers will be laid on the lower ballast; these will carry two sets of rails, with one pair offset 285 mm towards the centre of the tunnel (Fig 1). This will provide sufficient clearance to accommodate 4 m high lorries on piggyback wagons.

To avoid altering the catenary, BLS plans to use a small fleet of locomotives specially fitted with an additional offset pantograph. Amongst the constraints this imposes is the need to ensure that the locos remain facing in the same direction.

As no other traffic will be able to pass on the adjacent track, high piggyback services would be restricted to seven each way per night between Basel and the Italian frontier at Iselle. Once the Lötschberg base tunnel is open, the offset track would be removed.

To achieve the required clearances from Brig to the frontier, SBB is planning to install overhead conductor rails through the Simplon tunnel (RG 10.89 p729).

Base tunnels

In the medium to long term, a dramatic rise in Swiss piggyback capacity will be assured by the construction of the NEAT base tunnels. Transport Minister Adolf Ogi is due to present draft legislation to the Swiss parliament in a few weeks. Parliamentary approval would be followed by a referendum in 1991, allowing detailed engineering design to begin. Construction would start in 1994.

NEAT entails construction of base tunnels under both the Gotthard and Lötschberg passes. The 49 km Gotthard bore will run from Amsteg to Bodio, and construction is expected to take from 12 to 16 years; earliest opening date is 2007.

The 30 km Lötschberg base tunnel from Kandergrund to Gampel or Steg, somewhat shorter than that envisaged when the government launched the project in May last year, could open two years ahead of the Gotthard. Good access will be provided from the north programme.' At the southern end a 25 km Simplon base tunnel from Visp to Domodossola is proposed, but this requires international negotiations as the southern portion will run into Italy.

Lötschberg shuttle

The Lötschberg base tunnel will play an important role as a road vehicle shuttle with loading terminals close to the A6 and N9 motorways. BLS Technical Director Dipl-Ing Franz Kilchenmann is already mulling over the design of shuttle trains which will run at 15 min intervals in each direction.

With a maximum speed of 120 or 130 km/h, these single-deck shuttles will have a loco at each end. Each rake will accommodate 100 cars in a length of 600 m. Only if a decision is taken to raise the speed to, say, 160 km/h, will the shuttle wagons have to be covered like those to be built for the Channel Tunnel.

In other respects the Lötschberg shuttle trains are likely to be far less complex than their Channel Tunnel cousins which will cocoon cars and their passengers in costly wagons whose bogies will offer a ride quality at 160 km/h similar to that of a passenger coach. It is, however, the excessive preoccupation with safety and fire prevention that has trebled the cost of the Channel Tunnel shuttles above the original estimates.

In Switzerland the hazards of fire and possible terrorist attacks are not perceived as problems, and with good reason. Trains have been carrying cars with their passengers in them through the Swiss tunnels since 1924, and not a single passenger has been killed. The car-carrier wagons are of simple design with open sides. A roof is provided to protect cars from ice falling from the tunnel ceiling. Driving on and off is a straightforward operation. During the journey passengers have no contact with the train driver, who is the only member of staff on board; he can, however, speak to passengers who have tuned their car radios to the special tunnel wavelength.

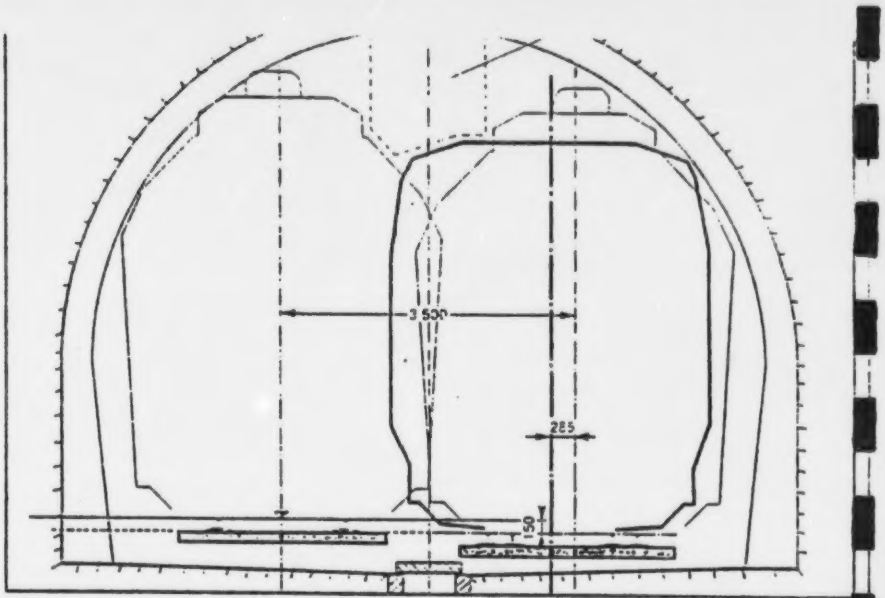


Fig 1. A gauntletted third track will cater for 4 m high lorries on piggyback trains through the Lötschberg tunnel

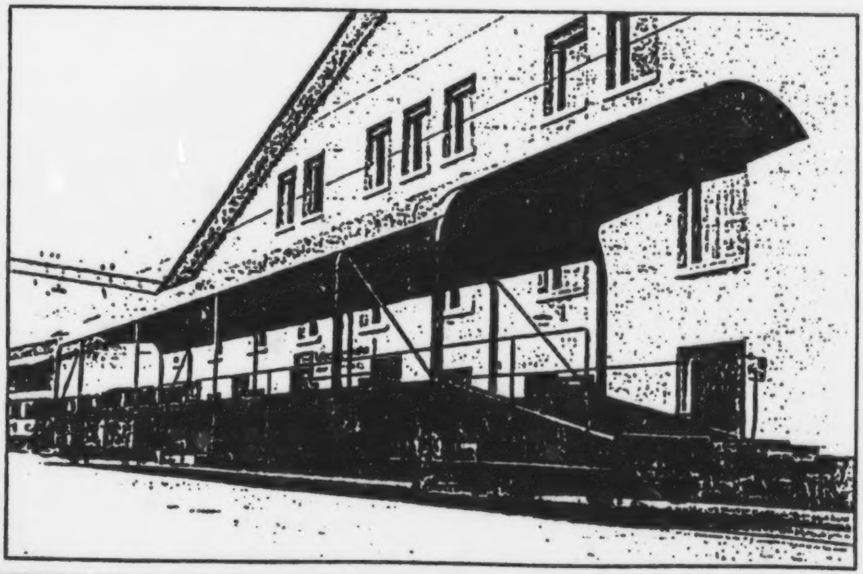
In the meantime car-carrier traffic through the present Lötschberg tunnel is rising at the rate of 10 per cent a year; last year saw over 1 million road vehicles ferried through, and BLS is anxious to meet the rising demand, which was stimulated in 1985 by the government's environmentally-inspired decision to subsidise the cost of the car carrier services; fares were cut to just SFr15 for a single car journey between Kandersteg and Goppenstein.

The BLS reviewed its car-carrying operations in 1987, concluding that there was a need to increase the frequency of services to provide extra capacity and cut waiting times at the terminals. The programme now being implemented covers a range of infrastructure improvements, including reconstruction of the exit tracks at Kandersteg to give a shallower grade allowing trains to leave the terminal faster. A third loading track is to be built at Goppenstein, and workshops are to be erected at Kandersteg to allow some of the stock to be maintained there rather than in Bönigen. Bogie changing facilities will be provided.

The BLS is also anxious to be able to carry buses, many of which are built to a design that is too high for the existing wagons. In planning to increase its car-carrier fleet, i has developed a design with tiny bogies t solve this problem. No suitable bogie was commercially available, so BLS turned to Waggonfabrik Talbot of West Germany wh developed a two-axle version of their three and four-axle designs used for low-floor piggyback wagons. A pair of prototypes (below left) was delivered in autumn 1988 and by July this year they had ru 120 000 km in service; various modifications were made to fine-tune the design to commercial conditions. They have 520 m diameter monobloc wheels, which also ac as brake discs. Maximum speed is 120 km/h.

Bogie development was followed by an order for 28 wagons from Talbot. Th 650 mm floor height of the wagons is lowe than the loading platforms (1 275 mm), so at each end of a set will be a special loading wagon with its floor level with the loadin platform. The next wagon is a ramp wago whose floor slopes to the 650 mm of the rest of the train. One loading and one ramp wagon are marshalled at each end of eac train. In other respects the new trains a similar to the vehicles in use since the 1950s.

Four driving trailer cars for the new push-pull trains are on order from Schindle Half the interior is available for up to eig motorcycles, the rest being seating accommodation. First delivery of the new stock is due in late 1990, so that extra capacity wi be available for the peak skiing season February 1991.



Case Postale 227
1213 Petit Lancy 2
Geneva, Switzerland

The Rail 2000 project, as contemplated, has a rather curious history. In 1972, the Federal Council set up a committee to make a comprehensive study of future Swiss needs in transportation: train, road, air, and pipeline. The general concept of swiss transport, now a proposed constitutional revision called the Coordinated Transport Policy, will be the subject of a referendum on June 12, 1988. The study published its results in 1978, and proposed that attention be given to the possibility of a high speed New Transversal Railway (NTR) as an alternative to or complement of the autoroute system.

The next step was an opportunity study, completed in 1983 which recommended the building of a high speed line along the east-west main line, Geneva-St. Gall. This proposal envisioned utilizing about two thirds of the existing railway and maximum speeds of 200 kmh with averages of 140 kmh. The idea was submitted to the cantons for commentary and the results were negative. Even though the concept was seen to be fiscally sound, the overall opinion was that it excessively favored the large cities to the detriment of the rural regions. The argument against the NTR was incomplete and short sighted, but nevertheless, a politically based decision was taken to develop a program that would be more «confederal» and concentrate less on increasing the speed of the cross country route and more on improving the entire system, especially regional services.

The result was Rail 2000, an extensive facelift, some say merely a cosmetic, for the entire Swiss railroad system. The heavily promoted program's excellent publicity material cites four principle benefits:

FREQUENCY, SPEED, CONTINUITY, AND COMFORT

Rail 2000 was accepted by the government in 1985 but was then challenged by farmers from the region around Solothurn who, facing the loss of land for proposed construction of one of the four new sections of rail line, obtained the necessary signatures to force the 1987 referendum. Five cantons voted against the project, Schwyz and Appenzell by narrow margins, Solothurn, Berne and Fribourg, all affected by track construction, by larger margins. Ticino and Grison gave the project the most favorable rating, with 76.6 percent and 69 percent of the voters opting for it.

Reducing total journey time without increasing the speed of trains

Faced with finding an alternative to the high speed line that would provide major service improvements, someone in the SBB realized that most major traffic points in Switzerland were approximately an hour apart. If these points could be connected in a regular hourly cadence, a significant percentage of the time savings of high speed trains could be realized. Thus the heart of Rail 2000 is a sophisticated timetable.

There are four new sections of track envisioned in the Rail 2000 program. Each are to enable the major cities to be connected by trains arriving and departing on an hourly basis. For example, the Lausanne-Berne needs to be reduced from 66 to 57 minutes and Berne-Lucerne from 78 to 56 minutes. This allows a number of different trains to arrive in and depart from a given station at nearly the same time. Adding more direct trains and coordinating connections with long distance and regional trains and buses plus improvements in the stations, to reduce the time needed to make changes, enables reductions in total journey time without much increase in the speed of the trains: this is the major improvement of Rail 2000. The 130 kilometers of new track (2.4 percent total existing network) were chosen not to increase speed per se, but to allow the trains to meet the hourly timetable of fifty-five minutes of travel time, plus the stops between the major connecting points. The system is somewhat like the «hub» system of airports in the United States. There is a question of whether this hourly cadence is in fact the best type of timetable, for the problem still remains that at peak times there will be crowding while many of the trains between peaks might be running nearly empty.

Nevertheless, the system is quite interesting in that its primary point is the timetable not the speed of the train. A number of trains leave a number of stations all at the same time. They travel for nearly an hour, with their speed regulated to insure they cover the unequal distances between stations in equal time. Then just before the hour ends, they all pull into the various stations in the network. The passengers find all their connections waiting for them and depart with the next cycle a few minutes later. Very Swiss, very neat. Naturally there cannot be delays or the system would quickly become chaotic. Although the Swiss railways are «only» running 92 percent on time at present (on time means within 6 minutes of schedule) they will certainly be able to make the idea work.

According to the Swiss Federal Railways, coordinating with neighboring countries has not been too difficult. Germany, Italy and Austria all have some sort of regular cycle of service which has minimized problems of linking schedules for the international services. France operates on a different conception, using a special clock known as Paris. This clock is only concerned with whether people can arrive and depart from the capital when they want to and is part of a general condition known as «the yellow headlamp syndrome». But as there are few French trains using Swiss lines, slotting them in between the more cyclic users has been possible.

There are also improvements planned for certain track sections which were already at near maximum capacity in order to allow the passage of the ncreased number of trains. Geneva-Lausanne will have a third track within the existing right of way. The new infrastructure was planned so that existing freight train capacity would not be reduced.

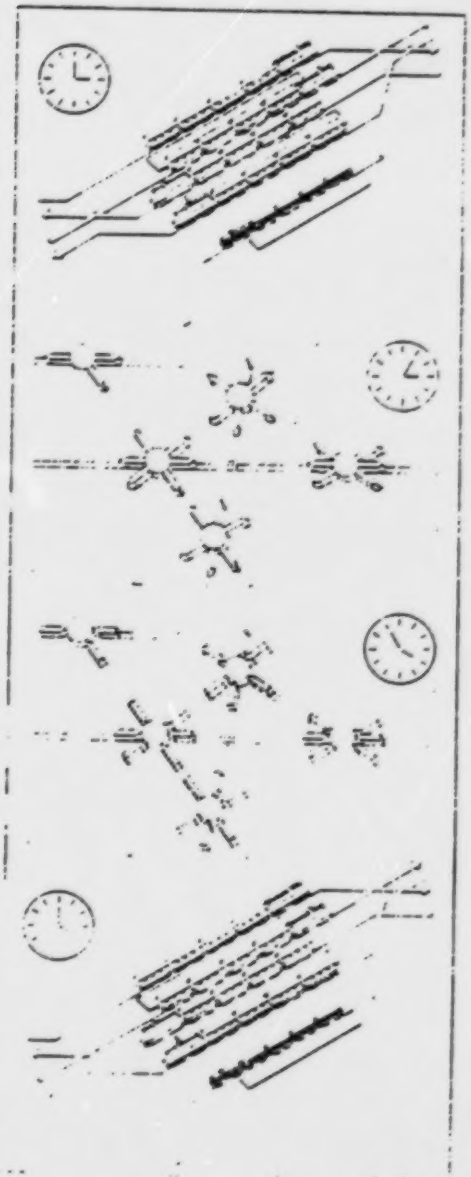
Work on improving the stations is an essential part of Rail 2000. In order for the increased and near simultaneous connections to work, it must be easy and fast for the passengers to get from one platform to another. Running up and down stairs and through dark, poorly signed tunnels just for the pleasure of missing a connection is too common an experience for many travelers. Platforms pose another problem. One of the great mysteries of the railroad world is why the platforms, already a meter or so above the ground are still several awkward steps below the floor of the train. This is not the result of some Newtonian law, as we have all used metros where platform and floor are level with each other. The SBB has adopted a Swiss compromise. They will raise the platforms so the passenger will have only one awkward step to make!

Naturally there cannot be delays or the system would quickly become chaotic

THE NEW LOCOMOTIVES

urrently, the fastest and most odern locomotive on the Swiss ederal Railway system is the Re 4/4 IV in service on the Geneva-[illegible] line. It is capable of more than 200 kmh, although the fastest it travels in regular service is 160 kmh on a short stretch of line near Visp. It already incorporates some of the features that will be on the new locomotives, especially the use of frequency convertors and non-synchronous motors which allow it to adjust to the different electrical grids in neighboring countries. This flexibility will eliminate the time consuming change of locomotives currently necessary at most borders and will certainly improve international services. Twelve of the new, aerodynamic Rail 2000 locomotives, with 6100 Kw power (up from 4700 on the Re 4/4 II now in general service) and a speed potential of 230 kmh have already been ordered. New running gear (bogies) have been developed for long life, high speed and silent operation. To be built in Switzerland by BBC and SLM, they will cost 6.6 million Francs apiece.

In conjunction with Rail 2000, the SBB has adopted a new signaling system which is simpler and easier to read than the current one. It can be used up to 160 kmh, but for speeds in the 200 kmh range, signals must be in the engineer's cab as well. One advantage of trains is their low rolling resistance which reduces energy consumption. However, this makes them hard to stop. A train needs 1350 meters to stop from 160 kmh. The wheels tend to lock at very low braking pressure. Traditionally trains have



How the hourly cycle works is shown on this ideograph:
15.00 hrs. all trains are stationed at the main railway junctions of the network
15.05 hrs. the trains leave the stations to different destinations
15.55 hrs. the trains are arriving at their destinations
16.00 hrs. one cycle has been completed

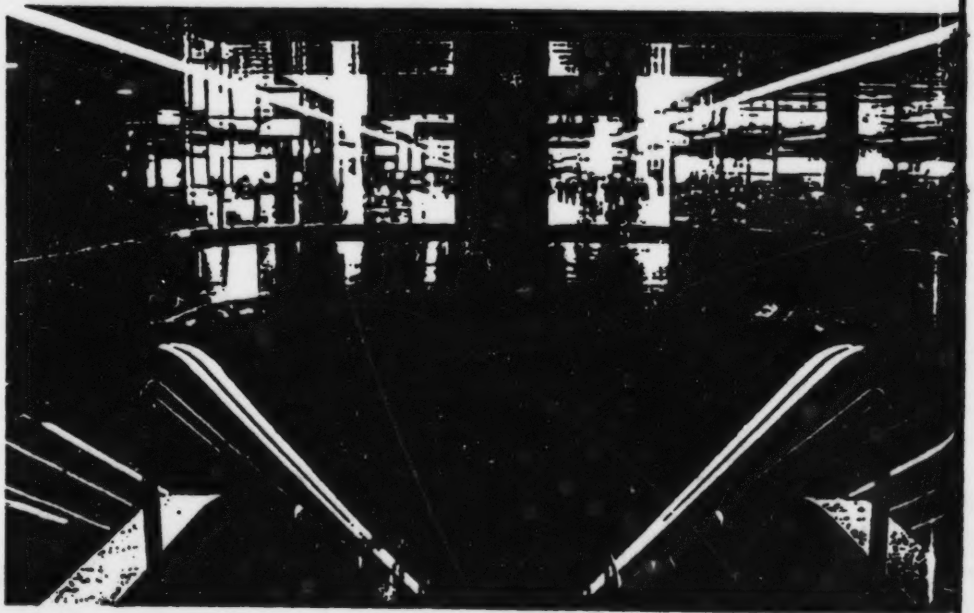
used compressed air to force the brake shoes against the wheels. This system will continue, but it has been improved by new anti lock technology similar to the ABS systems in cars. For emergency braking, powerful electromagnets acting on the rails can be employed.

All these systems plus a ground controlled automatic brake system that operates if the engineer fails to follow the signals and a new computerized traffic control system are on test in the Valais. Safety is the first concern of these systems, with reliability a close second. The new traffic control systems are somewhat like «fly-by-wire» systems in the latest airplanes, with several computers constantly checking each other as they issue commands. A major distinction between rail and air systems is that while the air systems are designed to be frequently removed for inspection and maintenance, railway equipment must be designed for several decades of fault-free performance.

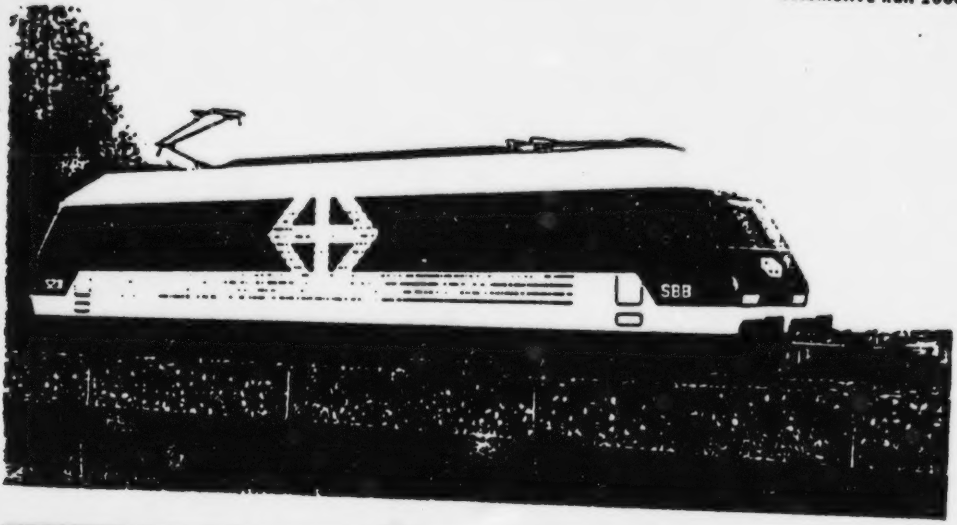
PASSENGER CARS

There are a number of different types of new passenger cars under consideration, and all promise to be quieter and more comfortable than those in current use. Some lines may feature cars with panoramic windows and for suburban use there may be double decker cars. A number of modular concepts are being considered that would «customize» cars, such as family cars with game rooms, and business cars with a lounge/bar and

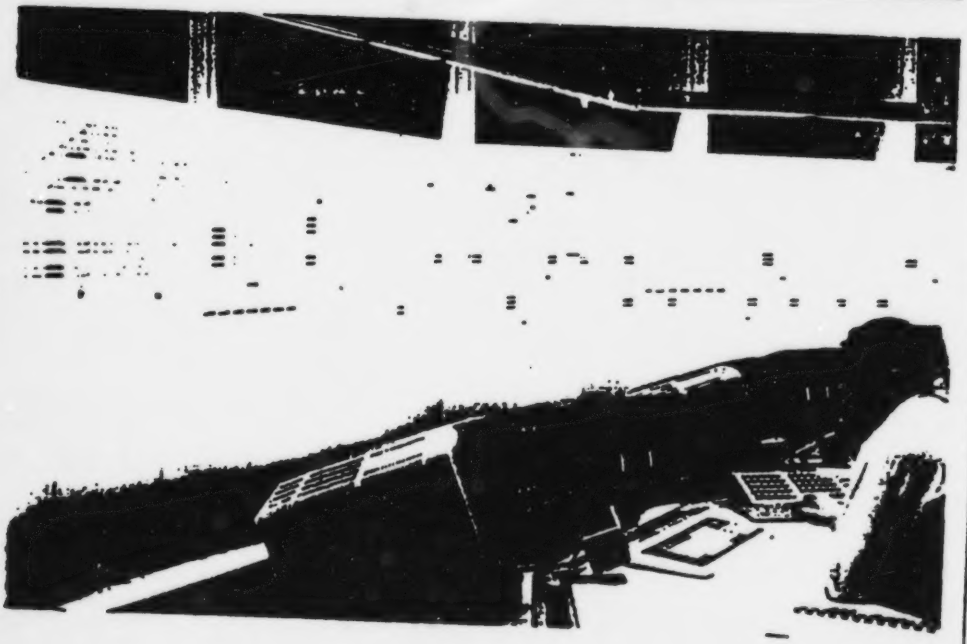
The new panorama wagon



Shopping street and escalators to the platforms of a modern Swiss railway station



Locomotive Rail 2000



Central room at the Swiss Federal Railway

(hopefully) electrical outlets for computers. Phones have already been tried on some lines, but they are excessively expensive. Even music systems and videos are being looked at. One would hope that most of the investment will be in really useful features and enhanced comfort without spending money on what might be considered «gimmicks».

The possibility of leisurely enjoying an excellent meal on a train has virtually vanished in recent years. Food service on the TGV is frankly horrible, and the Swiss «self-service» cars, as the SBB politely understates, «are little appreciated by passengers». There are still dining cars on the main east-west and north-south routes, and the quality is fair although prices, especially for wines, are high and the choice is quite limited. The Swiss Restaurant Car Company SSG operates all the dining cars and about two-thirds of the mini-bar services under a contract with the Federal Railways who specify the route on which they want food service cars. The contract calls for guaranteed revenues, and if they are not achieved, the SBB makes up the difference.

These cars are not easy to make profitable and the SBB has reduced its ownership of SSG from 20 percent to 2 percent with the shares being purchased by companies with more experience in the restaurant field. The unloved self-service cars are thankfully to be retired and nineteen new restaurant cars have been ordered, the first of which will begin service on the Foot of the Jura line later this year. These cars incorporate a new system. There will be no chefs on board.

Tunnels that terminate outside the Confederation are not appreciated

rather the quite successful system of steam heating vacuum packed prepared meals will be tried. This should allow high quality meals with vastly reduced costs. There will be linen and china and table service. For breakfast there will be an attractive buffet. It seems to be a worthwhile attempt to resolve a difficult problem. The author has also suggested that the mini-bar service be expanded with a mini-bistro concept. On trains where there is not enough demand for a regular dining car, a module containing the mini-bar supplies and a small selection of the vacuum packed meals could be placed on the train. The mini bar server could take orders on the first pass through then return with a hot meal or a cold plate on a tray rather like the good meal one finds on some airlines every other year or so. If the new restaurant service wins acceptance, plans are to expand the fleet to forty cars

FREIGHT SERVICE

Freight carried by the Federal Railways continues to decline. Except for bulk items like chemicals and oil, it is nearly impossible for the railways to compete with truck transport. The handling charges are high and especially for shorter distances, point to point times are excessive. However, advanced computerized goods control systems, new loading techniques and mini-containers could make the use of rail freight more attractive for a number of users, particularly those with their own spur line. The major exception to declining use of freight trains is in piggy-backing of trucks and trailers or hauling full sized containers. This is an especially important concept for environmental and traffic congestion reasons on the north-south line

Since 1967 Hupac of Chiasso has operated a ferry system across Switzerland from Basel and two other points to Lugano and Milano in the south. This operation has been very successful in reducing road congestion and pollution although it still requires a subsidy of some 22 million francs a year. There have been objections to the system from truckers and foreign governments who want the right to drive unlimited numbers of 40 ton trucks (Swiss roads are limited to 28 ton loads) across the country. There are at present six round trips per day of trains carrying complete trucks and their drivers. Twenty-two thousand trucks were carried in 1986. Rates are approximately the same as fuel costs. The system is being expanded but at present faces two problems. One is that it is near to capacity and the other is that because of the size of tunnels, only about thirty percent of the trucks currently on the roads can take advantage of it. Work is underway to integrate more trains into the network and to slightly enlarge the tunnels, but this will only partly resolve the situation.

THE NEW TRANS-ALPINE RAILWAY LINE

In order to handle the increasing demand for trans-alpine freight traffic, particularly the truck ferry and containers, a new alpine rail tunnel is under consideration. There are five different proposals, which involve three main tunnel possibilities: Splügen to the east, a new St. Gotthard tunnel and a new tunnel under Lötschberg and the Simplon to the west. The results of the study will be announced this summer. There is strong pressure from western Switzerland for the Lötschberg-Simplon tunnel, but both it and the Splügen proposal have a serious defect that will probably result in the St. Gotthard version being chosen. They both end in Italy, and it is not in the Swiss nature to appreciate tunnels that terminate outside the Confederation. It is obvious that the 49.3 km under the current St. Gotthard route could have important strategic value and so it is likely to be chosen. As a secondary reason, it would act to vastly improve connections between the Italian part of Switzerland and the north.

Another attractive aspect of Rail 2000 is the plan to increase long term reduced rate parking facilities near some stations. Two other federal railway projects, the Geneva Airport connection and the one-half fare card, deserve mention. Although not strictly part of Rail 2000, they both have made genuine contributions to the Swiss railway system. After half a year of operation, the train station at the airport is exceeding revenue expectations if not passenger loads. The system is operating well and figures to date indicate it will pay for itself. Interestingly, passenger use has not declined at Cornavin in the city center so the traffic is new, not just taken from the other station.

cont. page 29

1.37 million half price cards sold in one year

Since it would be designed for a 100-year life, it would be profitable. A first stage of 70 kilometers in length would take approximately 15 years to construct and cost in the neighborhood of 2 billion francs, and the complete Geneva-St. Gall line 22 years and 7.6 billion francs, about the same cost as Rail 2000.

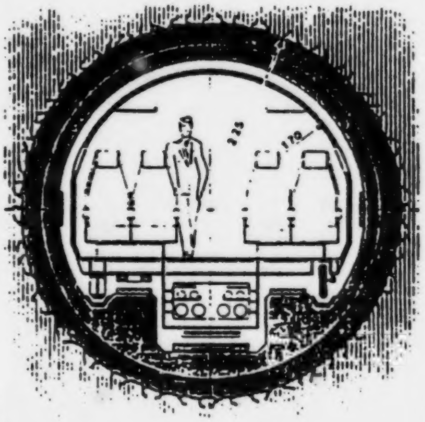
One disadvantage of the Swiss Metro is that the view would not be spectacular, but those who must travel for business don't look at the view much anyway. Besides, since we often travel at night and in adverse weather, this particular objection to the project is not very important. Even so, it would be wise if the trains were equipped with televisions showing video clips of the Alps.

Such an advanced concept has not exactly been welcomed with open arms. The general response of the railway people is that they don't want to hear about the project. Although the project has been brought up in the National Parliament, it has not yet succeeded in obtaining enough support to obtain finances for a more detailed study. In fact the only serious study on the idea is now being done by a German firm.

There is no question that the Swiss Metro concept is at the absolute leading edge of technology, nor is there any question that it is a fascinating idea. It is unfortunate that the establishment is not yet prepared to give it a more serious look. The first railways came late to Switzerland, and the outrageous idea encountered strong resistance in the early years. Perhaps the Swiss will adopt the same approach they used with the federal railway system and let the project go ahead if the risk can be privately financed. Then, if Swiss Metro works, they can hold a referendum and nationalize it, just like in 1898!

STERLING DOUGHTY

Cross section of Swiss Metro tunnel



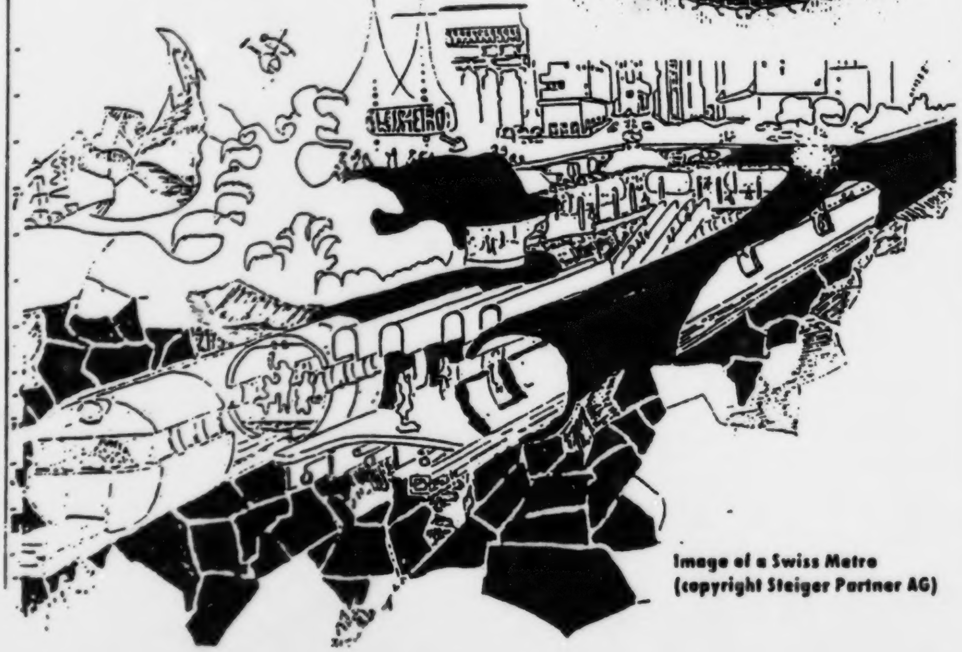
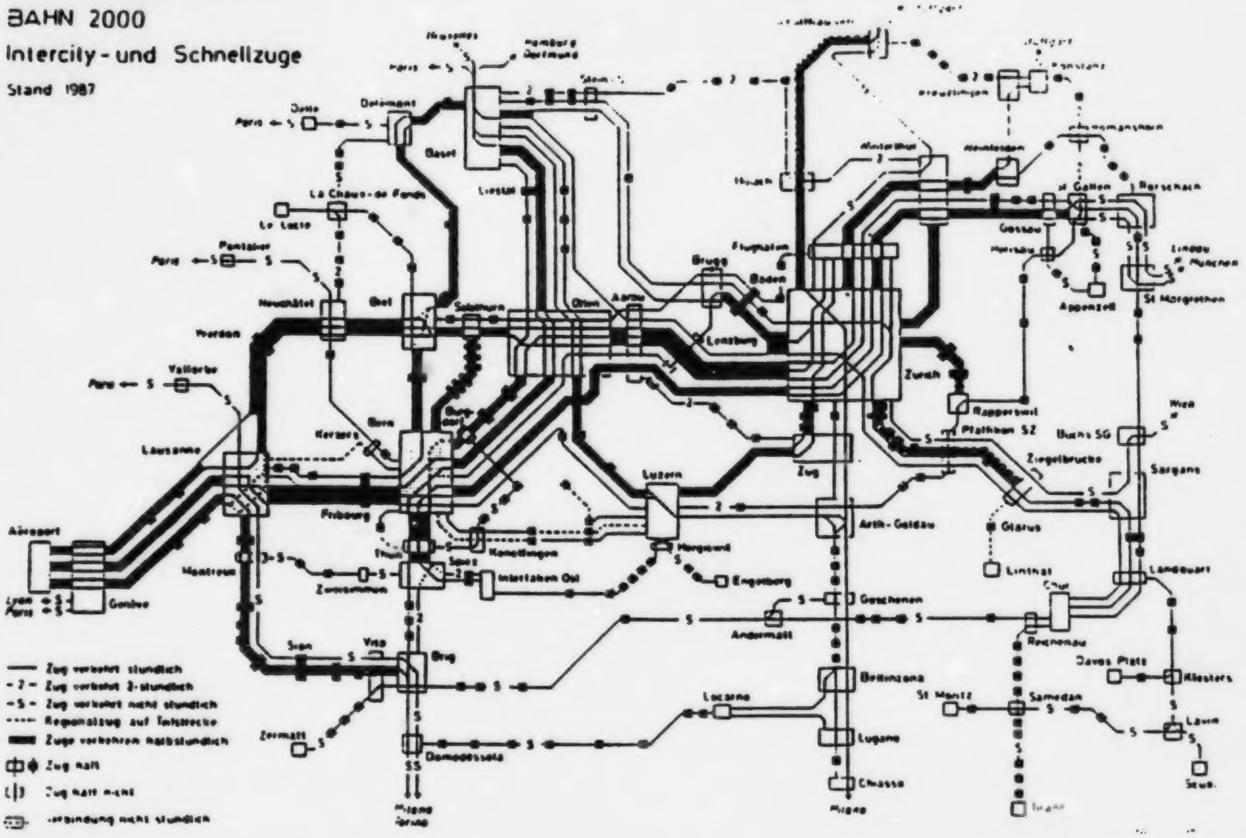


Image of a Swiss Metro (copyright Steiger Partner AG)

Diagram of Intercity fast trains


BAHN 2000
Intercity- und Schnellzuge
Stand 1987
Basel
Delémont
Delle
Paris
Liestal
Hamburg Dortmund
Schaffhausen
Stuttgart
Kreuzlingen
Konstanz
Romanshorn
Winterthur
Weinfelden
St Gallen
Rorschach
Gossau
Herisau
Appenzell
Lindau München
St Margrethen
La Chaux-de-Fonds
Le Locle
Pontarlier
Neuchâtel
Biel
Solothurn
Olten
Aarau
Brugg
Baden
Flughafen
Lenzburg
Zürich
Yverdon
Vallorbe
Lausanne
Bern
Kerzers
Fribourg
Thun
Spiez
Interlaken Ost
Konolfingen
Zweisimmen
Montreux
Aéroport
Genève
Lyon
Sion
Visp
Brig
Zermatt
Domodossola
Milano Genua
Luzern
Zug
Hergiswil
Engelberg
Arth-Goldau
Göschenen
Andermatt
Bellinzona
Locarno
Lugano
Chiasso
Milano
Rapperswil
Pfäffikon SZ
Ziegelbrücke
Glarus
Linthal
Buchs SG
Wien
Sargans
Landquart
Chur
Reichenau
Davos Platz
Klosters
St Moritz
Samedan
Lavin
Scuol
Tirano
Zug verkehrt stündlich
Zug verkehrt 2-stündlich
Zug verkehrt nicht stündlich
Regionalzug auf Teilstrecke
Züge verkehren halbstündlich
Zug hält
Zug hält nicht
Verbindung nicht stündlich

There are complaints about the noise generated by the trains from residents in the St. Jean quarter of Geneva. Of course the vast number of trains is part of the problem, but also the newer and quieter rolling stock was delivered more slowly than expected. The SBB is to put up sound barriers on part of the track and the canton plans to cover over part of the tracks and install parklike areas so the end result is likely to please everyone.

Between November 1986 and October 1987, 1.37 million half price cards were sold in Switzerland. As the name implies, they can be used to buy half price tickets (first or second class) on all the trains and boat services in the country. It has been a superb marketing success and resulted in a passenger-km increase of 11 percent. With the annual cost only 100 francs, you can pay for the card with two long round trip tickets.

Depending on how you structure your accounting, the SBB either nearly breaks even or operates at a real annual loss of some 1.5 billion francs. Because of the myriad social and ecological benefits this subsidy brings to Helvetia, it is probably money well spent. The costs of Rail 2000 will be nearly eight billion francs, but anticipated increase of use of the network should allow it to pay for itself in coventional accounting terms as well as appreciably enchance the value of the railway system to the entire country.

However, after all this, it is still clear that one element is missing from the concept, a true high speed cross country train. That was the conviction of the first studies begun sixteen years ago and it is still true. I spoke with a number of SBB personnel during the course of this article's preparation, and they all agreed on this although none would agree to be quoted on the subject. I am not so modest, and feel that Rail 2000 is a good concept which only lacks a fast train to be complete. Two main possibilities exist. One is the highly sophisticated, technologically advanced Swiss Metro concept. The other is more of a mini TGV using for the most part the existing infrastructure. The primary objection to the high speed train was that it favored the large cities. But large cities have the traffic to make such an investment feasible. Autoroutes link the large cities, airports are found at large cities. It is completely natural, and it is not necessarily negative, as long as the rural areas' connections to the large cities are maintained. If one wants to take the train say from Geneva to Klosters, a fast train to Zurich with good onward connections makes it feasible to leave the car at home. Otherwise one might go to another destination. In the same vein, rural communities with good connections to the larger world tend to live longer, healthier lives.

Imagine the SMHST (the Swiss Moderately High Speed Train). The locomotives and cars would be smaller and lighter. Current cars weigh 48 tons, locomotives 100. The SMHST cars would weigh under twenty tons, they would be three instead of four meters high and two instead of three meters wide. Acceleration would be vastly improved and the air compression problems caused when crossing other trains at high speed would be virtually eliminated. Negative winglets would keep the train stable and prevent high speed floating. Advanced magnetic brakes acting on the rails would eliminate another problem, the safety considerations and the time lost in braking. Entry would be level with the platform. They could go faster on current tracks because of the lowered center of gravity and advanced suspension systems. The cost would be modest in comparison with other trains of the type as little new infrastructure would be needed and almost no precious landscape would be required for their construction. With the changing nature of time, and our increasing desire to voyage faster and still be in harmony with the Earth, is this not an example of sensible progress that would vastly enhance the usefulness of Rail 2000?

STERLING DOUGHTY

ORAL PRESENTATION TO
F.E.A.R.O. PANEL
MARCH 29, 1990

GOOD EVENING, DR. BARNES *** PANEL MEMBERS *** MY NAME IS [redacted] *** I AM MAKING THIS ORAL PRESENTATION AS A PRIVATE CITIZEN ALTHOUGH ASSOCIATED WITH OTHERS SHARING DEEP CONCERN WITH SOME VERY SERIOUS DEFICIENCIES AS EXHIBITED IN THE FIXED LINK PROCESS FROM ITS INCEPTION TO THE PRESENT TIME. I AM A PROFESSIONAL ENGINEER AND WAS EMPLOYED IN THE P.E.I. FERRY SERVICE FROM 1935 TO 1957. DURING THIS TIME I HAD A GREAT INTEREST AND AMPLE TIME TO OBSERVE AND PONDER ON THE ENORMOUS FORCES EVOLVING FROM THE KINETIC ENERGY INHERENT WITH MASSIVE ICE FIELD MOVEMENTS PECULIAR TO THE NORTHUMBERLAND STRAITS. FROM 1957 TO MY RETIREMENT I WAS ENGAGED IN TRANSPORTATION ENGINEERING AT CNR REGIONAL HEADQUARTERS IN MONCTON DURING A TIME OF SIGNIFICANT DIVERSION OF RAIL FREIGHT TRAFFIC TO THE HIGHWAY MODE. I SHALL REFER TO THESE POINTS LATER IN MY SUBMISSION. I SHOULD ALSO MENTION HERE THAT THROUGH PRESS MEDIA LETTERS I WAS ACTIVE IN EXPOSING THE MAJOR DEFICIENCIES OF BOTH THE CAUSEWAY PROMOTION OF THE MID-50's AND LATER THE COMBINATION CAUSEWAY**BRIDGE**TUNNEL SCHEME -- COMPLETE WITH ROUGHED-IN ROADWAYS ALONG WITH HIGHWAY OVER-PASSES ON BOTH SIDES OF THE STRAITS WHICH STILL STAND AS MONUMENTS TO THAT PARTICULAR STUPIDITY! HOWEVER, UNFORTUNATELY OUR 'HANG-UP' WITH 'OVER-THE-WATER' TYPE CROSSINGS STILL PERSISTS AS EVIDENCED BY ONLY 3 BRIDGE-BUILDER FINALISTS IN THE RUNNING AT THE MOMENT WITH THE

TUNNEL OPTION TOTALLY DISQUALIFIED THROUGH POLITICAL EXPEDIENCY. I SHALL NOW PRESENT MY ARGUMENT IN FAVOR OF THE TUNNEL CONCEPT UNDER 3 HEADINGS -- A, B AND C. "A" BEING RELATED TO POLITICAL INPUT TO THE FIXED LINK PROCESS, "B" AS A BRIEF SUMMARY OF PRO'S AND CON'S OF BRIDGE VERSUS TUNNEL, AND "C" MY CONCLUDING REMARKS.

"A"

WHEN CONSIDERING POLITICAL INPUT TO THE FIXED LINK PROCESS IT IS IMPORTANT TO NOTE THE DIFFERENCE IN APPROACH BY MAINLAND POLITICIANS AS COMPARED TO OUR P.E.I. POLITICIANS. ONLY RECENTLY WE HAD A VISIT FROM A NOVA SCOTIA POLITICIAN. WM. CASEY, M.P. CUMBERLAND/COLECHESTER, EXPOUNDING TO A LOCAL SERVICE CLUB ON THE GREAT MONETARY INPUT TO THE REGION DURING THE CONSTRUCTION PHASE OF A BRIDGE LINK AND INTIMATED THAT CONSTRUCTION SHOULD COMMENCE WITHOUT DELAY AS ALL QUESTIONS RELATED TO MARINE ENVIRONMENT AND IMPACT OF A BRIDGE ON FISHERIES HAD BEEN RESOLVED BY PUBLIC WORKS CANADA CONSULTANTS. HOWEVER MUCH MORE IMPORTANT TO THIS FACT IS THAT MR. CASEY DID DELIVER A SIMILAR SPEECH IN THE HOUSE OF COMMONS LAST FEBRUARY AND, PLEASE NOTE, HIS BACK-BENCHER SPEECH WAS STRONGLY SUPPORTED BY NONE OTHER THAN THE HON. ELMER MACKAY, MIN. P.W. CAN. WHOSE SPEECH WAS PRACTICALLY AN ECHO OF MR. CASEY'S. FOR A WHILE AFTER THE NOV. '88 FEDERAL ELECTION, SOME HOPE WAS ENTERTAINED THAT A MORE SENSIBLE POLICY OF LINK 'CRITERIA' MIGHT ENSUE ON THE APPOINTMENT OF A NEW MINISTER OF P.W. CAN. FOLLOWING THE DEFEAT OF STUART MCINNES --- BUT, SAD TO SAY, THE HON. ELMER WOULD SEEM TO HAVE LEARNED ABSOLUTELY NOTHING FROM THE MISTAKES OF

HIS PREDECESSOR AND SEEKS TO PUT THE BRIDGE LINK 'STEAM-ROLLER' AT FULL THROTTLE AGAIN! HENCE P.W.CAN. HAS NOW COMPLETELY BLOWN ITS COVER -- NO MORE POSTURING AS THE HONEST BROKER OF FIXED LINK OPTIONS -- NO MORE 'SMOKE AND MIRRORS' ACT TO DISTRACT AND CONFUSE THE PUBLIC! P.W.CAN. NOW STANDS FULLY REVEALED AS A SALESMAN FOR BRIDGES ONLY WHICH WAS REALLY THEIR STANCE FROM THE BEGINNING WHEN JOE SHANNON AND ASSOCIATES ENTICED THE FORMER MIN OF PUBLIC WORKS WITH "BRIDGE BAIT" -- AND HE WENT FOR IT*** HOOK, LINE AND SINKER! FURTHER TO THIS POINT, IT IS VERY IMPORTANT TO NOTE HERE THAT, FOLLOWING HIS DEFEAT IN THE 1988 ELECTION, THE FORMER MIN. OF ENVIRONMENT, OUR OWN TOM MACMILLAN, WAS VERY CANDID AND FORTHRIGHT IN MAKING THE FOLLOWING PUBLIC STATEMENT -- TO QUOTE -- "I THINK THE GOVERNMENT SHOULD RECONSIDER THE TUNNEL OPTION -- IF A TUNNEL CANNOT BE CONSIDERED BECAUSE DEVELOPERS ARE UNABLE TO COMMIT THEMSELVES TO A FIXED PRICE, ISLANDERS SHOULD BE TAKEN INTO THE GOVERNMENT'S CONFIDENCE ABOUT EVERY POSSIBLE IMPLICATION OF A BRIDGE." (CH'TOWN GUARDIAN MARCH 4/89).

SO HERE WE HAVE IT! WITH THE PROSPECT OF 'MEGA-BUCKS' BEING SPENT IN THEIR RESPECTIVE RIDINGS DURING A BRIDGE CONSTRUCTION, MAINLAND POLITICIANS ARE ONLY TOO EAGER TO RIDE A POPULARITY CREST IN LOOKING TOWARD A FUTURE RE-ELECTION. OF COURSE NEITHER THEY NOR THEIR CONSTITUENTS HAVE TO LIVE WITH OR MAKE DO WITH WHATEVER FORM OF FIXED LINK MAY BE ERECTED IN OUR STRAITS***BUT WE ISLANDERS DO***AND FOR PROBABLY THE NEXT 100 YEARS! WITH THIS THOUGHT IN MIND IT IS INDEED ESSENTIAL THAT WE NEVER ACCEPT THE 'BRIDGE-ONLY' CONCEPT OF P.W.CAN. AND INSIST ON A FULL REVIEW OF THE RAIL TUNNEL

OPTION WITH PROVISION FOR WHATEVER PRELIMINARY TEST BORES, ETC. AS MAY BE NECESSARY. THIS SHOULD BE A 'BOTTOM LINE' REQUIREMENT TOWARDS PROVIDING A 'LEVEL PLAYING FIELD' FOR BOTH LINK OPTIONS. I SHOULD NOTE HERE THAT, AS THE ROAD TUNNEL CONCEPT HAS BEEN PROVEN TO BE WELL BEYOND ANY ACCEPTABLE ECONOMIC PARAMETER DUE TO MASSIVE VENTILATION REQUIREMENTS (UP TO 10 MEGA-WATTS), I AM NOT REFERRING TO IT AS AN OPTION IN THIS SUBMISSION. HOWEVER IT COULD INDEED AGAIN BECOME AN OPTION POSSIBILITY IF A NON-POLLUTING ENERGY SOURCE SHOULD EVER BECOME AVAILABLE AT A FUTURE TIME.

WITH RESPECT TO THE REACTION OF OUR LOCAL P.E.I. POLITICIANS OF ALL PARTIES (BOTH PROVINCIAL AND FEDERAL), IT IS INDEED NOTABLE THAT THEY ALL PREFER A 'NO COMMENT' STANCE AND SOMEHOW MANAGE TO KEEP THE FIXED LINK PROJECT 'AT ARM'S LENGTH'.

MY ONLY COMMENT RELATED TO THIS STANCE OF OUR ISLAND POLITICIANS IS THAT I BELIEVE THAT THEY HAVE TAKEN THE ONLY SENSIBLE COURSE OF ACTION OPEN TO THEM AT THIS TIME AND INDEED SHOULD AVOID EVEN INTER-PARTY CONFRONTATION IN DEALING WITH FIXED LINK ISSUES. WITH RESPECT TO AN OPEN POLICY ON LINK OPTIONS, THE TIME FOR MEANINGFUL LEADERSHIP FROM OUR LOCAL POLITICIANS IS NOW LONG PAST***SO THAT FOR NOW***SILENCE IS GOLDEN!

"B"

BRIDGE VS. RAIL TUNNEL--PRO'S AND CON'S

IN MY PREVIOUS SUBMISSION TO YOUR PANEL LAST JUNE I DETAILED SOME COMPARATIVE FACTORS RELATIVE TO THE BRIDGE AND RAIL-TUNNEL OPTIONS, AND, WITH ONE EXCEPTION, SHALL ONLY BRIEFLY SUMMARIZE THEM HERE.

(1) MARINE ENVIRONMENT & IMPACT ON FISHERIES

BRIDGE - A PERCEIVED BUT IMMEASURABLE RISK OF DIMINISHING FISHING ACTIVITIES. THE LONG STANDING 'BRIDGE ONLY' BIAS AS EXHIBITED BY P.W.CAN. CASTS SERIOUS DOUBTS ON THE CREDIBILITY OF THE OPTIMISTIC REPORT EMANATING FROM THEIR CONSULTANTS ON THIS POINT. INDEED ONLY THE MOST AVID BRIDGE PROPONENTS COULD EVER ACCEPT SUCH A REPORT.

TUNNEL - RISK ZERO

(2) STRUCTURAL FAILURE FROM IMPACT ON MOVING ICE FIELDS

BRIDGE - A PERCEIVED RISK UNDER EXTREME COINCIDENTAL CULMINATION OF WIND, WEATHER AND TIDAL CURRENT EVENTS. AS THE 3 BRIDGE 'FINALISTS' AS APPROVED BY P.W.CAN. ARE ALL UNDER A COMPETITIVE COMPULSION TO ACHIEVE A LOWEST POSSIBLE COST FIGURE TO WIN CONTRACT ACCEPTANCE, THEY COULD BE JUST A LITTLE LIGHT IN THEIR PIER STRENGTH DESIGN! THEY ARE QUITE LITERALLY REQUIRED TO ATTEMPT TO CREATE THE CLASSICAL IMMOVEABLE OBJECT TO WITHSTAND AN IRRESTIBLE FORCE. TRY AND IMAGINE THE SCENARIO WITH A "MISSING LINK" AND THE FERRIES LONG GONE! GAME OVER FOR P.E.I.! HOWEVER REMOTE ** THIS IS A RISK THAT SHOULD BE TOTALLY UNACCEPTABLE!

TUNNEL - RISK ZERO

(3) DRIVING HAZARDS FROM WEATHER INDUCED FACTORS

BRIDGE - WHILE SUCH RISKS MAY BE TO SOME DEGREE MINIMIZED BY TRAFFIC CONTROL PROCEDURES, YET THERE WILL ALWAYS BE SOME ELEMENT OF RISK ON A 15 KM HIGH LEVEL BRIDGE OVER SUCH AN EXPOSED LOCATION AS NORTHUMBERLAND STRAITS.

TUNNEL - WEATHER INDUCED RISKS - ZERO

(4) TRAFFIC DELAYS FROM WEATHER INDUCED FACTORS

BRIDGE - MOST CERTAINLY A BRIDGE CONTROLLER WOULD BE APPOINTED WITH FULL AUTHORITY TO CLOSE THE BRIDGE TO TRAFFIC WHEN ADVERSE WEATHER CONDITIONS PREVAIL -- HIGH WIND -- FREEZING RAIN -- DRIFTING SNOW -- ETC. YOU MAY BE WELL ASSURED THAT HE WOULD BE EVER SO CAREFUL WHEN CALLED ON TO MAKE SUCH 'GO' OR 'NO GO' DECISIONS! CERTAINLY THERE WELL COULD BE FAR MORE WEATHER INDUCED DELAYS WITH A BRIDGE THAN NOW EXPERIENCED WITH THE EXISTING FERRY SERVICE.

TUNNEL - NO DELAY FROM WEATHER. IF YOU CAN GET TO A TUNNEL; YOU CAN GET THROUGH IT.

(5) FUTURE TRAFFIC MODE CONSIDERATIONS

BRIDGE - THE THREE BRIDGE 'FINALISTS' DO HAVE ONE COMMON FEATURE IN THEIR OVERALL DESIGN -- THEY CAN ONLY PERMIT AND PERPETUATE THE CURRENT TRANSPORTATION MODE OF LONG DISTANCE MOVEMENT OF BULK FREIGHT CARGOES OVER OUR HIGHWAYS.

TO MY MIND, THIS IS A TOTAL 'COP-OUT' FROM THE ENVIRONMENTAL REALITIES FACING US TODAY, -- NOT ONLY ON THE LOCAL LEVEL OF OUR FIXED LINK, BUT ON A NATIONAL AND GLOBAL SCALE AS WELL. WITH THE WORLD MOVING TOWARD EVER INCREASING ENVIRONMENTAL CRISES WITH TIME FAST RUNNING OUT FOR CORRECTIVE MEASURES, IT IS INDEED ESSENTIAL THAT ANY FIXED LINK SELECTED SHOULD BE ADAPTABLE TO PERMIT FUTURE CHANGE TO A MORE FUEL EFFICIENT TRANSPORTATION MODE ATTENDANT WITH GREATLY REDUCED ATMOSPHERIC POLLUTION.

DURING PAST FIXED LINK DISCUSSIONS, BRIDGE OPTION SUPPORTERS HAVE MADE FUTILE ATTEMPTS TO FIND PRECEDENTS IN OTHER NORTHERN COUNTRIES TO VALIDATE A BRIDGE STRUCTURE IN OUR STRAITS -- NOTABLY THE OLAND BRIDGE IN SWEDEN, ILE DE REI IN FRANCE, MACKINAC IN MICHIGAN. IN NO WAY ARE THESE LOCATIONS COMPARABLE TO OUR STRAITS RESPECTING ICE COVER, WINTER CLIMATE OR TIDAL CURRENT.

AT THIS POINT I WISH TO PRESENT OTHER EUROPEAN PRECEDENTS OF RAIL TUNNELS IN SWITZERLAND -- THE STOREBAELT RAIL BRIDGE/TUNNEL IN DENMARK AND A PROPOSED RAIL/HIGHWAY FACILITY TO LINK SWEDEN AND DENMARK ACROSS THE ORE SUND NOW IN A PRELIMINARY DISCUSSION STAGE. THE EFFORTS OF THESE PROGRESSIVE NATIONS TOWARDS SOLVING SOME VERY GRIEVOUS PROBLEMS RESULTING FROM EVER INCREASING HIGHWAY TRANSPORT OF BULK FREIGHT CARGO SHOULD SERVE AS AN EXAMPLE FOR SOME REALISTIC THINKING ON OUR PART AS TO JUST WHAT KIND OF A FIXED LINK FACILITY WE REALLY NEED. CERTAINLY IT SHOULD NEVER BUT NEVER BE A TYPE OF BRIDGE THAT WOULD FOREVER BIND US TO THE HORRENDOUS HIGHWAY TRANSPORTATION MODE THAT SLOWLY BUT SURELY CREPT UP ON US OVER THE PAST 40 YEARS. LIKE SOME BIZARRE MANIFESTATION OF "PARKINSON'S

LAW", THE HIGHWAY TRUCKING INDUSTRY EXPANDED TO OVERFILL ALL ROADS AS PROVIDED AT PUBLIC EXPENSE TO THE DETRIMENT OF THE MUCH MORE FUEL EFFICIENT RAIL FREIGHT MODE. PLEASE NOTE HERE THAT COMPARING DIESEL FUEL CONSUMPTION OF RAIL FREIGHT VS. HIGHWAY TRUCK FAVOURS RAIL FREIGHT BY A RATIO OF APPROXIMATELY 3 1/2 TO 1. IN OTHER WORDS, IT WOULD REQUIRE APPROXIMATELY 3 1/2 TIMES AS MUCH FUEL TO TRANSPORT A UNIT LOAD BY TRUCK AS IT WOULD BY RAIL FREIGHT AND, OF COURSE, THE DEGREE OF ATMOSPHERIC POLLUTION WOULD BE IN ABOUT THE SAME RATIO. THE BASE FIGURES FOR THE ABOVE MENTIONED FUEL CONSUMPTION RATIO WERE OBTAINED FROM MY FORMER EMPLOYER, CNR, ARE AS FOLLOWS: TRUCK -- 5 MILE/GAL. OR 0.2 GAL/MILE, MANIFEST FREIGHT -- 9 GAL./MILE, AVG. MANIFEST FREIGHT -- 100 CARS -- 1 MILE LONG. APPROXIMATELY 160 TRAILER TRUCKS EQUIVALENT TO 1 FREIGHT TRAIN. WHILE ADMITTEDLY THESE ARE ONLY APPROXIMATE AVERAGE FIGURES, THEY DO SERVE TO MAKE THE POINT THAT THE PRESENT EMPHASIS ON TRANSPORTATING FREIGHT BY HIGHWAY IS TOTALLY OUT OF LINE WITH FUTURE ENVIRONMENTAL REQUIREMENTS. WE SHOULD NEVER ACCEPT ANY FORM OF FIXED LINK THAT SHOULD BE CONSIDERED OBSOLETE FOR ENVIRONMENTAL REASONS EVEN BEFORE CONSTRUCTION MAY BE COMMENCED.

AND SO, DR. BARNES, IN CONCLUSION MY RECOMMENDATION TO YOUR PANEL IS THAT THE BRIDGE OPTION DEFINITELY DOES NOT MERIT FURTHER CONSIDERATION WHEN CONSIDERING ITS MANY NEGATIVE ASPECTS AS DETAILED ABOVE. A RAIL/TUNNEL PROVIDING ROAD VEHICLE SHUTTLE SERVICE SHOULD BE CONSIDERED THE FIXED LINK OPTION OF CHOICE AS IT IS THE ONLY OPTION THAT IS SUPPORTIVE OF THE DESPERATE AND IMMINENT NEED FOR DRASTIC ENVIRONMENTAL REFORM. ANYTHING LESS THAN THIS IS

A DEFINITE 'COP-OUT' FROM REALITY! SHOULD THE RAIL TUNNEL OPTION BE FOUND TO BE WELL OUTSIDE ANY ACCEPTABLE ECONOMIC PARAMETER -- THEN -- SIMPLY PUT -- WE ARE NOT READY FOR A FIXED LINK AT THIS TIME AND SHOULD THEN BE LOOKING AT AN IMPROVED FERRY SERVICE.

I WISH NOW TO EXPRESS MY THANKS TO YOU, DR. BARNES, AND PANEL FOR THE OPPORTUNITY TO PRESENT MY VIEWS ON THIS CRUCIALLY IMPORTANT MATTER. I AM SURE THAT, DESPITE THE MANY DIVERGENT VIEWS OF THE MANY INTERVENORS, THERE IS ONE THOUGHT THAT WE CAN ALL AGREE ON *** THAT IS -- WE ALL RECOGNIZE AND APPRECIATE THE AWESOME RESPONSIBILITY YOU JOINTLY BEAR IN REACHING A FINAL DECISION ON OUR FIXED LINK PROCESS. INDEED THE FATE OF OUR ISLAND PROVINCE FOR THE NEXT CENTURY IS QUITE LITERALLY IN YOUR HANDS.

THANK YOU,

Maurice B. Lodge

MAURICE B. LODGE
13 SYDNEY STREET
CHARLOTTETOWN, P.E.I.
C1A 1G1
TELEPHONE: 892-7165

PRESENTATION TIME APPROXIMATELY 15 MINUTES.

Bechtel

10 Gateway Boulevard
Suite 200
Don Mills, Ontario M3C 3N8
Telephone (416) 467-3100

March 28, 1990

Environmental Assessment Panel Reviewing the
Northumberland Strait Crossing Project
Holman Building, 2nd Floor
25 University Avenue
P.O. Box 2221
Charlottetown, Prince Edward Island
C1A 8B9

Gentlemen,

The Crossing has been the subject of extensive scrutiny over many years with accent being primarily placed on a bridge. The company for whom I currently consult, Bechtel Canada Inc., was part of the Abeqweit Crossing consortium, one of the proponents who were not short listed in September of 1988. Our proposal was for a steel bridge and our comments on design criteria and reasons for our selection of bridge type are on file with the Panel.

The course of current events however give reasonable cause to consider re-examination of the tunnel option. The Eurotunnel on which Bechtel is currently engaged in a management capacity provides a blueprint of proven ideas for incorporation into a crossing for the Northumberland Strait. With this in mind, a description of the Eurotunnel is provided for the Panel.

Proposal calls for the Crossing in 1988 included a tunnel configuration showing two vehicular tunnels and one service tunnel, however, the geo-technical work available to the bidders was intended to provide indicative data for bridge foundations.

With more data becoming available on the Eurotunnel, it may be prudent to consider a single rail tunnel using an electrically powered train. This concept would make full use of the extensive research available on boring methods, trains, loading and unloading cycles, and estimating data.

In order to further such an objective, an immediate priority would have Public Works Canada calling for a Feasibility Study along with a preliminary Geo-technical Study to support a tunnel concept. If these results are favourable, a more detailed geo-technical evaluation would enable contracting groups to provide responsive competitive bids.

.../2

Alternatively, Public Works Canada could place contracts for the work on an agreed ground conditions basis and carry the contingency for variations from this agreed norm.

The apparent cost of a single electrified tunnel has a much better possibility of meeting the financial criteria set by PWC, it can take advantage of the extensive research done on the Eurotunnel, and it eliminates the environmental problems attendant with bridge construction.

I trust this is of assistance to the Panel.

Yours very truly,

R.W. Harmer

/mm

A Discussion Of
The Northumberland Strait Crossing Project

Submitted To: The Federal Environment Assessment and Review Panel

Submitted By: Islanders for a Better Tomorrow

Date: March 6, 1990

Introduction

Islanders for a Better Tomorrow formed to promote the concept of a fixed link across the Northumberland Strait through a unified voice. Members of the organization represent a diverse array of sectors and activities particular to the economy of Prince Edward Island: agriculture, tourism, and construction are to name but a few.

Islanders for a Better Tomorrow advocate that a fixed link is essential to the continued growth and prosperity of those very industry-induced activities that currently depict our Island's livelihood.

Moreover, a fixed crossing will secure our position in an ever-increasing competitive marketplace.

We are confident that rigorous scrutiny of the nature and impact of effects brought about by the proposed bridge option has been realized. We are similarily of the belief that all phases of the Review process to date have systematically identified and addressed risks associated with the Bridge project.

We have considered the research evidence. We trust that the Panel will make recommendations such that the Fixed Link project is carried to fruition.

Land and Agriculture

A recurring theme of Prince Edward Island tourism and development has consistently been and continues to involve the issue of land. In and of itself land is a basis for tourism.

Consequently, the importance placed on its uses and management cannot be undermined in an agriculturally-based, rural society such as ours. Its fragility as a resource is recognized as an issue central to tourism planning and development.

The tourism industry as a whole appreciates its role and responsibility in ensuring that the Prince Edward Island landscape "will not be sullied by careless development" (TIAPEI, Tourism and the Land, 1989). Indeed, an enduring and endearing image of the Prince Edward Island landscape is its rolling countryside, dotted by quaint farm homes and operations.

1.5 million acres comprises the total landscape of this province. Of that, over half is farmland within which a further 450,000 acres is cropland (TIAPEI). Agriculture is key to the Prince Edward Island economy and way of life.

As an employer, this industry directly and indirectly accounts for 26% of the province's workforce and 11% of Prince Edward Island's gross provincial product (Smith Green, Support Document Socio on Economic Effects, 1989). Direct employment in relation to the number of farmers and farm workers approximates 5600; 1250 employees are found in processing agricultural commodities; 500 employees constitute the public service. Indirectly, agriculture accounts for an additional 6500 jobs, making up the balance of the 14,000 employed by this industry in this province. Clearly, the impact of the agriculture industry extends itself to other sectors of the Island economy. Tourism and the service sector are but two industries worthy to note.

Agricultural trends in this country, however, are changing. As a consequence, the patterns of Prince Edward Island merely follow suit. Increased specialization, increased size in farming operations, technology giving rise to new machinery, fertilizers and chemicals maximize land use and thus profit margins. The days of the smaller scale farming operation are numbered. Without technology, competition is one-sided.

Changing trends, of necessity impact the agricultural industry of Prince Edward Island. They are deeply rooted and deeply felt. Currently, there is a 23% decline in the number of farmers province wide. Kings County is experiencing a decline in the range of 21.7%; Queens County 26%; Prince County 19.2% (Smith Green). Moreover, total farm acreage is on the decline. Provincially, 8% is representative of a decrease in farm acreage from 731,035 to 673,196 acres (Smith Green). Offsetting farm acreage decreases are incremental increases in the numbers of farms surpassing 400 acres. During the period between 1976 and 1986, the gap has widened from 9.6% to 15.6% of all farms. Decreases in the numbers of people farming translates to increases in the numbers of incorporated farms, production yield and specialization. As a consequence thereof, leaseholds are the preferred option as opposed to outright land purchase. Moreover, transportation systems rely completely on the highway mode as opposed to the former rail/highway mix.

How then, does the proposed fixed crossing factor in to the competing interests and changing trends within the agricultural industry? Theoretically, it does not. The process of change is ongoing in the agricultural industry. Whether or not there is a fixed link will have little impact. In other words, the economics of the industry as opposed to the presence of a fixed link will dictate the mandate for the process of change. If anything, industry specialists speculate that a fixed link may indeed temper the "rate of change," as opposed to facilitating it (Smith Green).

A fixed link will prove highly beneficial as a time saving device in terms of traffic convenience to the agricultural industry as a whole.

This is not to suggest that concerns in the matter of agriculture are not relevant or well-founded. Undoubtedly, the agricultural industry will be impacted by factors of assessment, ownership and changes in land use; altered transportation practices; climate changes due to changes in ice patterns; increased tourism and expropriation of property for road building pruposes. The evidence supports the conclusion, however, that such impacts will not be detrimental to the agricultural industry, perse.

In the matter of assessment of farm properties, for instance, arguments regarding potential increases in property assessment and taxes due to "bridge-induced demands for land," do not appear cogent (Smith Green). The Prince Edward Island Department of Finance, Property Assessment Division, confirms that agricultural land in production "is assessed on the basis of agricultural values and not on the basis of possible alternative use" (Smith Green). In other words, potential and/or alternative land use does not factor in to the farm property assessment equation until such time as "it is taken out of production and placed on the market for such use" (Smith Green). Similarly, concerns regarding land ownership and use are two-fold, namely, a concern in the increase in non-resident ownership and increased speculation by developers. The evidence, however, suggests that a fixed link crossing in and of itself will have little impact on either. Changes in land use and ownership, as previously outlined, have been ongoing over the past decade. Such changes will continue, as necessarily incidental to economic ramifications within the industry. Documentation supports agreement among agricultural specialists who advocate that the presence of a fixed crossing will have little impact on land use (Smith Green). Clearly, the tourism industry will flourish.

Concerns have been expressed regarding conversion of agricultural lands to tourist use; specifically cottage development, resort areas and tourist attractions. Critical to note is the fact that documentation supports the conclusion that such concerns may have been "over-stated (Smith Green). The evidence as reflected in visitor services data confirms that assumptions made regarding increases in cottage development are ill-founded. Land use practices will not alter significantly since "real demand may not exceed the number of cottage lots which have already been approved for development".(Smith Green).. Moreover, should lands be diverted from agricultural to tourism use, they will be of marginal value to the former industry in any event.

While analysis of the impacts of tourism in the area of land use does not support the probability of significant change, so too will land ownership remain largely unaffected. While some suggest a fixed crossing may increase speculation in land, the evidence proves that such a happening would be an inevitable outcome of any major construction project. To date, there have not been fluctuating developments in land speculation. In like manner, non-resident ownership is not expected to increase as an incident to the establishment of a fixed crossing. In 1988, ownership of 11% of the total area of the province lay with non-residents, in contrast to 7% in 1973 (Smith Green). Common sense dictates that price and not the presence or lack therof of a fixed crossing determines ownership of land by non-residents. Moreover, there is legislation to control and regulate land use and ownership in this province. The safeguards are securely in place.

Potential impacts on agriculture in relation to transportation practices are considered positive. First, in the transport of agricultural and farm products, improved efficiency will be realized as an incident of time-saving and cost-saving measures. Second, improved access to markets in a timely and predictable fashion will go a long way in securing the place of Prince Edward Island agricultural products in outside markets. Third, while the province's market-share in mainland markets will be enhanced, so too will increased market competition within the province involving outside producers be enhanced. Moreover, improved access for mainland producers may serve to reduce costs for consumer goods.

PEI farmers have expressed concern regarding climatic temperature changes and their effect on the potato industry. While numerous factors influence successful harvest outcome, a fixed crossing is not considered detrimental in and of itself.

Impacts on the tourism industry will be far reaching. An increase of 145,000 visitors or 25% is expected by bridge completion year's end. Subsequent years will evidence a more consistent growth pattern in the range of 2.5% per annum.

Additional land then, may be required for accommodation and recreational purposes. As previously outlined, in such a case agricultural acreage usurped for some will be of the manginal variety. To the extent that this is so, an increase in the number of visitors to Prince Edward Island may afford the industry the opportunity to broaden its local markets in meeting the consumer demands of the visiting public, while at the same time raising its profile in accessing new markets.

Highway traffic increases brought about by a fixed crossing and any corresponding effects on road safety will, for the most part, be offset by the elimination of the "pulsing effect" at ferry arrival - departure terminals and speeding to meet scheduled ferries. Traffic flow at the three major destination areas of Charlottetown, Cavendish, and Summerside is expected to increase. Tourism development will serve to address this situation through improved distubution of tourist demand.

Expropriation of lands for the purposes of building approach roads and ramps in facilitating a fixed crossing is considered unnecessary. Lands in the Borden-Cape Tormentine areas have been pinpointed in order to affect same. Should additional property be required, it is contemplated that lands will be obtained by purchase. Failing that, expropriation would be resorted to only if necessary and permitted by statute. Deleterious effects would be offset by compensation. Regardless of whether the fixed link proposal is carried to fruition, highway modification in relation to existing ferry service have been and will inevitably continue to be an Island way of life.

It is submitted that a fixed crossing would prove beneficial to the agricultural industry of this province. Improved reliability and timelines in the transport of goods, improved access to outside markets and reduced imput costs will go a long way in securing the success and continuance of this most important Prince Edward Island industry.

P.E.I. Tourism

There has been much discussion with regard to the fixed crossing and its potential impacts on the tourism industry on PEI. Concern has evolved primarily around the uncontrolled or undesirable development of the industry. Tourism is vital to the province's livelihood, currently ranking second to agriculture in terms of expenditures and job creation. It is our belief that any potentially undesirable effects of tourism as a result of a fixed crossing will be eliminated through utilization of appropriate mitigative measures and careful planning processes.

The industry outlined a comprehensive plan for ensuring the appropriate development of tourism in a document entitled "Tourism 2000". In essence, the strategy aims to encourage the development of the tourism industry in an integrated and sensitive manner, protecting the social and environmental values and resources of the Province. The industry proposes to accomplish its goal of one million tourists for the year 2000 via a 3% growth per annum in the intervening eleven years by improved distribution of tourists over time and place. Increased development during the peak season will be directed towards the eastern and western portions of the Island. Continued development of the shoulder seasons on a province-wide basis will also affect appropriate distribution of visitors.

The assessment of possible bridge project impacts indicates a probable increase in annual tourist visitations of 20-25% in the intial phase of bridge operations. This is to be continued by an annual increase of 2.5% per year thereafter (Smith, Green 1989). Concerns have stemmed from the probability that the entire expanded market could arrive in the first year of bridge operation and during the peak season, between mid-June and mid-September.

This scenario, while unlikely to occur, would represent an increase of close to 100,000 visitors in the 92 day period. However, an even distribution of increased visitor markets appears to be an attainable objective, particularly in light of two significant market changes that have come about within the past five years.

The first change in market trends has been the 50% increase in the percentage of visitors who have not selected a main destination in the province. This group may respond favourably to market efforts to achieve a more balanced distribution of tourists throughout Island communities. The second significant market change is in the increased numbers travelling without children. It is very likely that these visitors would respond favourably to new innovative off-season advertising and promotion efforts.

Additional matters of concern have been the ability of the accommodations sector to meet increased tourism demands and the development of effective responses to the infrastructure requirements necessary as a result of expansion. Planning for expansion of the accommodations and food services sectors will undoubtedly require particular attention to infrastructure needs. It is suggested that active pursuit of mitigation action will achieve a balanced utilization of accommodations throughout all regions of the province and throughout the entire tourism season. Furthermore, appropriate planning based on all available information will address infrastructure requirements. Matters such as water supply, sewage treatment and disposal, solid waste disposal, as well as all other community service and support systems must be integral parts of the planning process.

Devaluation of the tourism product was an unfounded concern. Impact studies found no threat to the quality of the tourism product from day - trippers or from undesirable factors as a result of the bridge project.

Impact studies on labour supply have identified concerns evolving around the lack of trained human resources, at all levels of the industry, to meet expanded staffing requirements. Industry officials indicate that the planning, development, and management of human resources within the hospitality industry has already been earmarked as a primary objective.

Currently, the industry is actively engaged in a process of upgrading human resources. This is accomplished through participation in a variety of industry-sponsored activities in conjunction with provincial and federal government departments and local training facilities. These efforts should prepare the hospitality industry to meet expected demands for trained staff as a result of bridge impacts.

The operation of a bridge crossing will have positive impacts for PEI's tourism industry. Advance planning time will be required to prepare new innovative marketing strategies and appropriate responses to supply-side impacts of a bridge crossing. The industry-wide planned response to tourism needs, as outlined in "Tourism 2000", will serve to facilitate planned development. Planned development will mean, in effect, controlled and orderly development of the tourism product.

Fisheries

The impact of a fixed crossing on PEI's fishing industry has been researched at length. In particular, the subject of Bridge/Ice/Fisheries interactions (i.e. Hurley Fisheries, 1988; Washburn and Gillis et al, 1989; F.G. Bercha and Associates Ltd.; 1989) has been examined due to concerns expressed by fishermen that the existence of a bridge may create ice jams which, subsequently, could affect commercially important fisheries. Studies have found no evidence to indicate adverse effects to the fisheries industry resulting from a Fixed Crossing.

While it has been determined that severe ice conditions can affect surface water temperatures in the strait in the months from April to July, effects on landings were minor. This is due to the fact that ice-modelling studies found no significant delays in ice-out as a result of the bridge project. Analysis has revealed that any delay in ice-out is likely to range from a minimum of six hours to a maximum of one week. Studies concluded that this range will not affect the successes of landings.

Fishermen have addressed as a concern possible bridge impacts in relation to loss of habitat. Some habitat will in fact be lost - particularly for lobster, scallop and herring spawning - due to the presence of a bridge structure. The creation of the new rip-rap at the base of the approximated 70 bridge piers is, however, expected to create desirable new fish habitat. This applies particularly to the various kinds of shellfish that exist in the strait.

Also noteworthy is the fact that exclusion of fishermen from the bridge construction zone could be minimized through coordination of the necessary components of the bridge construction schedule with the fishing schedules required by the industry.

The issue of potential disruption of fish migration patterns in the Northumberland Strait has also been raised. Most species inhabitting the strait demonstrate some type of migratory behaviour. According to the knowledge of fishermen and scientific research, 27 fish and shellfish species are known to inhabit or migrate through the strait. Of these 27 species, it was found that 15 made limited movement. Assessment of movement included both duration and distance travelled.

The data collected suggests that the presence of a bridge structure is not expected to interfere with the pattern of migration of any species. The patterns of some species may be altered during actual bridge construction due, for instance, to an increase in turbidity. This situation is not considered to affect migrants and will be of short duration.

In summary, our organization recognizes that the marine environment is a highly complex, static system and that there are numerous interconnected variables that influence fisheries. It is our belief that full consideration has been given to project impacts on the physical, biological and chemical marine processes. Concerns with regard to losses to fisheries as a result of the bridge project appear to be unsubstantiated.

The fisheries industry shall indeed continue to grow and prosper and will maintain its place as an industry vital to the social and economic fabric of PEI.

Environment

Islanders For A Better Tomorrow believe that environmental sustainability must be the highest priority of government and society in consideration of a fixed link proposal. To threaten our province's natural resource economy is to threaten our very existence. The development and implementation of sound environmental management programs will be of absolute necessity when considering the possibility of a fixed link project.

Many of the identified environmental consequences are essentially a function of increased tourism traffic. The PEI National Park and surrounding area is a major tourist destination. At risk from increased traffic are the very sensitive and unstable sand dunes. A management program is currently in place in an effort to protect dunes. The impacts of additional pressures, particularly to sensitive terrestrial habitats, must be mitigated through planning for sustainable development throughout the province.

Increased traffic brings attention to the human health risks from vehicular emissions. There are several components of vehicular emissions all considered harmful to human health depending on the level and duration of exposure. By the year 2000, it is anticipated that the total number of vehicles travelling the fixed crossing will be 1,343,983.

It has been demonstrated, however, that the resultant level of emissions will not pose any risks to human health. Worthy of mention is the fact that the overall consumption of hydrocarbons associated with a bridge crossing is in fact significantly less than that associated with the current ferry system.

Employment

Of importance to note in the identification of employment opportunities is the hypothetical nature of the exercise. Statistics based on assumptions made may be misleading, particularly when the specific project has yet to be selected. Capital cost estimates, method of construction, sources of goods and services are variables uncertain and in some instances unknown.

Comparison with other projects of like magnitude verifies that a prefabricated structure, of a factory as opposed to the traditional construction approach, is an option. Consequently, the mandate of the labour force is predictable.

Construction requirements are known. Seventy-five percent of direct expenditures regarding materials, equipment and services will be met within the Maritime region. Indeed, there is a requirement placed sequarely on the shoulders of the developer to attend full and fair access to opportunities to regional firms and labour (Smith, Green; 1989). Over the five-year construction phase, it is expected that there will be created 2,000 jobs per annun at the bridge site and 500 jobs per annum in the steel fabrication industry in this region. Approximately 50 full-time employment opportunities are expected from bridge operations. Tourism and other related industry is expected to experience positive spin-off effects as well.

Short-term employment projects will utilize both skilled and unskilled labour from the region during the bridge construction phase. Outside recruitment may be required in areas of specialized trades and professions. In the longer term, apart from bridge crossing staff, other industries foresee possibilities for growth and expansion due to improved efficiency and convenience in transportation and communication via the fixed crossing.

Of those Marine Atlantic jobs in jeopardy, some employees will be able to convert from full-time to part-time and/or seasonal employment. Early retirement may also be an option for some. Bridge induced entrepreneurial opportunities will be supported by start-up assistance from ACOA. Additional members of the labour force may need to re-locate due to termination of the Marine Atlantic ferry service. It is expected that mitigative measures at the community level will be undertaken to offset the negative impacts of lost employment. Indeed, in many PEI and New Brunswick communities, mechanisms are currently in place to deal with seasonal employment conditions.

Overall, the economic sectors of this province expect employment trends to improve excepting for displaced Marine Atlantic employees. Increased interprovincial trade and the free-flow of goods will go a long way in offsetting any potential negative ramifications predicted in the economy. In fact, all sectors of the PEI economy anticipate expansion, reflective of the new opportunities likely to emerge in business and elsewhere. Economic benefits translate to social benefits. The employment forecast is bright in both the short and longer term.

Conclusion

In conclusion, Islanders for a Better Tomorrow ascribe to the necessity of an environmental plan outlining how our province will deal with environmental issues.

We believe that there must be thorough scrutiny of all implications prior to acceptance of a project proposal. Monitoring programs must be in place throughout the planning, development, and operational phases of a fixed link crossing. Furthermore, mechanisms must be secured in order to facilitate revision of earlier predictions and provide the flexibility necessary for a large-scale project to respond to evolving conditions.

We realize that the mitigation of potential negative impacts appears to have been the primary focus of the work carried out by Public Works Canada. And while it is our wish not to underscore the significance of mitigative activity, we would like to highlight some examples of the positive effects discussed. They are as follows:

*Improved transportation and communication capacities will facilitate expansion of agriculture, tourism, fishing and manufacturing industries.

*Reduction of crossing times from the current average of 100 minutes to 15 minutes on the bridge.

*The elimination of inconvenient and frequently disturbing effects associated with ferry line-ups. An estimated 1,975 vehicles will be able to cross the bridge each hour.

*The provision of benefits to Islanders in the amount of an approximated 8 million dollars due to savings experienced by the trucking industry.

*Substantial savings in the utilization of fuel. Ferries require five times the amount of fuel as do vehicles.

Islanders for a Better Tomorrow are extremely confident in the overall value of the fixed link project to Prince Edward Islanders. We believe a bridge crossing to be a viable and responsible mechanism for the establishment of a link to the mainland.

Supplement
to
Discussion Paper
on
The Northumberland Strait Crossing Project
of
March 6 1990.

Submitted to: The Federal Environment Review Panel

Submitted by: Islanders for a Better Tomorrow

Date: March 22, 1990

Introduction

Islanders for a Better Tomorrow intend to present the attached document as a supplement to the Discussion Paper submitted on, or about, March 6 1990.

We believe there are additional considerations on some of the subjects by the different studies and reports requested by the Panel.

It is not our intention to read the original submission but will do so if requested by the Panel.

Islanders for a Better Tomorrow includes representitives of the Tourist, Construction, Transportation, Real Estate and Agricultural industries. It also includes Chambers of Commerce, the Canadian Manufacturers Association a number of Labour Unions and individuals.

It is expected that many of our members will be submitting briefs and comments. As these have the experience the expertise and the resources to detail the effects of a fixed crossing on their spheres of activity, we will make general comments and introduce a few suggestions that might not have already been covered.

General Comments (1)

Government Services and the Industrial Tax Base.

In spite of the announcement of the establishment of new industries in the province. many Prince Edward Islanders face a rather grim future.

At the time this submission was prepared, this province vied with Newfoundland for the highest unemployment rate in Canada.

The Provincial Budget, just brought down in the Legislature, announced increased taxes on some items and a broadened Provincial Sales Tax Base.

Our Provincial Treasurer stated that these increases were attributed to a decrease in Federal Government grants, and the necessity of balancing the Provincial Budget without withdrawing any of the present Provincial Government's services.

Prince Edward Islanders have the luxury of a full fledged provincial government, with all the trimmings, to serve a population smaller than most canadian cities.

While many provinces have a large industrial tax base, or natural resource incomes, to assist in financing government expenditures, our government has only a small number of industries to supply this kind of revenue.

General Comments (2)

Government Services and Industrial Tax Base.

If this province is to continue to offer the same services available in other provinces and still maintain a balanced budget, something will have to happen. It might be that:

a. Provincial taxes will have to be raised.

b. More taxable industries will have to be encouraged to establish here and present industries become more profitable.

c. Federal Government grants will have to increase. There is little liklihood that "c" will happen.

If we are to broaden our industrial tax base, the province will have to become more attractive as a place in which to establish industry.

Islanders for a Better Tomorrow believe a fixed crossing will assist present industries to become more profitable and will make the province a more attractive location for industry.

General Comments (3).

Land & Agriculture

The importance on the use of land cannot be underplayed in an agriculturally based society such as ours.

Over half of the 1.5 million acres of land in this province is farmland.

Agricultureis one of the keys to the Prince Edward Island economy and "way of life".

The industry has been impacted by changing agricultuaral trends. According to the Smith Green study on Socio Economic Effects, reply to question "K", there has been a 23% percent decline in the number of farm between 1976 & 1986, province wide: 21.7% in Kings county; 26% in Queens and 19.2% in Prince. Farm acerage has declined by 8% and farms of over 400 acres have increased from 9.6% in 1976 to 15.6% in 1986.

Whether or not a fixed crossing is constructed, trends in agriculture will continue to change. Again, according to the same Smith Green report, a fixed crossing might possibly temper some of that change.

In this same report it is stated that demand for cottage lots, if a fixed crossing is constructed, will probably not exceed the number already approved by the Provincial Government, for development.

General Comments (4)

Land & Agriculture

Concern has been expressed that, due to the fixed crossing, land will have to be expropriated for highway construction.

Land is already held for the bridge connection, the "clover leaf" has already been constructed so it would not appear likely that more land will be needed for road construction in that area.

Briefs of the Atlantic Provinces Truckers Association and the Atlantic Provinces Transportation Commission have both pointed out the need for an improved and expanded trunk line highway system for this province. The discontinuance of rail freight service in the province has added to the traffic congestion.

Whether or not the fixed crossing will be built, our province is faced with a massive road improvement plan to take care of the natural annual traffic increase!

We submit that a fixed crossing will prove beneficial to Agriculture in this province by improving reliability of transportation time, improved access to outside markets and reduced costs. These will all add to the success and expansion of this important industry.

General Comments (5)

Employment/The Island Way of Life.

Many Islanders are presently drawing Unemployment Insurance. Others have used up this source and depend on the Provincial Department of Social Services. Others are earning below subsistence incomes and depend on food banks and other charities for nourishment.

Construction of a fixed crossing will have a positive effect on both skilled and unskilled short term employment. The exact number of people employed in construction and support industries will not be known until construction plans are revealed.

We are confident that Prince Edward Island industries, entrepenuers and labour can successfully compete when the present barrier of the Strait is overcome, and that this province will expand its industrial base, thus opening more long term and permanent jobs.

We recognize that employess of the present ferry system will be effected by a fixed crossing and that this is the cause of real and deep concern to them and to their families. However, in this case, job disruption will not be sudden and unplanned. Bridge construction will take a number of years to complete. This will give time for individual arrangements to be made with each employee and thus bring disruption and hardship to a minimum.

General Comments (6)

Employment/the Island Way of Life

For a good many Islanders, improvement in "The Island way of Life", is the opportunity for decent employment.

The fixed crossing will improve both short term and long term employment opportunities on Prince Edward Island and will thus improve "The Island Way of Life".

General Comments (7)

Fisheries

Islanders for a Better Tomorrow are aware of the concerns expressed by many fishermen in this province and on the mainland about the effects of a fixed crossing on their industry.

Our members are not fishermen, nor are they Marine Biologists. Some have read the reports on the studies prepared for the Review Panel, but because of the highly technical contents of these reports, our members do not believe they are competent to comment on them.

We believe that the effects of such a construction will not be all negative. Improved crossing facilities over the Strait will cut down times to market and thus help our Island fishermen to be become more competetive.

We recommend that the specifications of the bridge, regulations for construction and for operation be such that potential adverse effects will be kept to a minimum.

We also recommend that a compensation package for those fishermen directly effected, be worked out as quickly as possible.

General Comments (8)

Tourism

There has been much discussion on the combined effects of Tourism and the fixed crossing on this province.

Concerns have been raised about uncontrolled and undesirable tourist developments.

As the industury is second only to agriculture in importance, both the provincial government and the industry's associations have been careful to draw up plans to control development and expansion.

Industry and Gvernment, working together, have outlined a comprehensive plan for ensuring the proper development, in a document entitled, "Tourism 2000" The strategy is to encourage is to encourage development in an integrated and sensitive manner; protecting the social and environmental values and resources of the province.

Outside of the peak seasons, tourist occupancy rates in the province are extremely low. We believe they are in the vicinity of 57.6% We believe, with ptoper planning, shoulder season, especially in the Fall months, could add materielly to the success of the Industry once ease of access to the province was possile.

The province's new water and sewerage regulations will prevent the abuse that, in some areas may have, in the past, caused some problems.

General Comments (9)

Tourism

Through its own training facilities and through such excellent training facilities as Holland College, the tourist industry should have no difficulty in a supply of properly traned personnell to fill its needs.

The permanent crossing will have a positive impact on the province's tourist industry. Planned development will result in a controlled and orderly expansion.

General Comments (10)

Environment

As residents of this province, we are concerned about our environment. We do not want adverse effects on the air we breathe, the water we drink and the beauty of our landscape.

Our provincial government is also concerned. It has strengthened the laws and regulations dealing with these subjects.

There is also a very active voluntary organization in this province that carefully screens developments to see they do not contravene environmental regulations. They have been successful in stopping a number of, what they considered t be, environmentally damaging developments.

The fixed crossing will have an effect on the environment. Every action we take effects the environment; even when we breathe. A furnace effects the environment as it burns fuel to heat our house.

The present ferry system effects the environment. The start up of over a hundred "cold" vehicle engines; all at the same time, pushes a large cloud of hydro-carbons into the atmosphere. If you are waiting in the ferry stockade, you might notice a great puff of black smoke come from a ferry as the engines start. There is a good possibility that the combination of these two, cause more pollution than that produced by a steady stream of vehicles.

General Comments (11)

Environment

Concerns have been expressed about our water supply. Although studies have shown that our water table is sufficient to supply the projected increase in needs, the number of cases of pollution experienced in the last couple of years have caused uneasiness.

A number of these cases appear to have stemmed from chemical and oil installations made prior to the present pollution regulations.

Present stringent provincial laws, coupled with an educational program, should do much to prevent future pollution.

While it is true the fixed crossing will effect our environment, the question is, will it have a large adverse effects, or an impact that can be weighed against possible advantages.

We believe that, with proper controls by both governments, our environment will not be seriously effected by the construction and operation of a fixed crossing.

General Comments (12)

Bridge Failure

Questions have been asked about the possibility that this provimce could be isolated by the failure of the bridge due to some type of accident or construction failure.

Although such an event would be unlikely, still, we believe that emergency measures should be arranged to ensure that our province would not be isolated; especially if this happened during the winter months.

We believe that, whether or not the fixed crossing is built, the Federal Government has a legal obligation to provide regular transportation and communication with the rest of Canada.

We recommend that, when the fixed crossing is approved, The Federal Department of Transport must contract for an emergency service to be implimented, if and when, the crossing is put out of action.

We also recommed that one of the loading ramps at both Borden and Tormentine be "mothballed" in such a way that it can be put back into service in a matter of a day, or less.

In this way, we believe, we can be assured that we will not be seriously effected by a bridge "outage".

General Comments (13)

Financing

Islanders for a Better Tomorrow are concerned that many Islanders do not understand the theory behind the cost of building the fixed crossing.

The original concept, and we have no reason to believe that the concept has been changed, was that the crossing was to be built by private funding that would be recovered by crossing fees.

We also understood that fees on the bridge would not be allowed to exceed the present ferry fees with a rise to follow the cost of living index or some similar chart.

Because of this we are puzzled when some, making submissions against the bridge, claim that the money, so used "by the government", should be spent for other purposes.

General Comments (14)

Independence

Islanders for a Better Tomorrow are puzzled by some making submissions against the fixed crossing who imply that, with a bridge, Islanders will lose their independence.

Do they not know that the Island, as a whole, depends on the Federal Government for its very financial existemce?

That the biggest inflow of cash into this province comes from the Unemployment Insurance cheques that arrive every month?

That, if one wants to travel off the Island, we depend on the Federal Government to supply the present ferry service that is subsidized by the Federal Government?.

That we are literally "wards" of the Federal Government at the present time?

If these people wanted to be independent, they would be for the crossing and not against it.

General Comments (15)

Regional and Racial discrimination

Islanders for a Better Tomorrow are saddened that expressions of regional and racial discrimination have been uttered by at least one person making a submission against the fixed crossing.

We are astounded that, living in this friendly and hospitable place, a person would be so bigoted that this Panel would be used as a forum to show contempt for potential visitors from other areas in the world.

We hope that "off Islanders" who happened to read of or listen to such comments will not think that our people subscribe to this intolerance.

We are confident that Islanders ae prepared to welcome visitors with friendly hospitality, no matter from what area they come and to what race they belong.

Conclusion

Islanders for a Better Tomorrow believe that a fixed crossing should be built across Northumberland Strait.

We believe that such a structure will be of a socio-economic benefit to the people of this province.

We believe that, although certain areas and branches of the fishing industry may be temporarily effected, the industry, as a whole, will benefit from the fixed crossing.

We believe the fixed crossing will improve "The Way of Life" of most Islanders.

We believe the advantages of the fixed crossing will outweigh what adverse environmental effects the fixed crossng may have.

We believe that safeguards can be arranged to safeguard against the Island's isolation in the event of a bridge failure.

We recommend that approval of the fixed crossing be given as soon as possible and that construction be started as soon as practical!

Ladies and gentlemen of the panel, I am privileged to be able to present to you my concern on the proposed transportation link between the provinces of Prince Edward Island and New Brunswick. My name is [redacted] and I am a resident of Charlottetown, Prince Edward Island.

My information was mainly derived from "Newspaper Clippings Regarding the Proposed Fixed Crossing Connecting P.E.I. and N.B.", Vol. 1 (Apr. 3, 1985 - Dec. 31, 1986), U.P.E.I. Robertson Library. Since the re-start of discussions on a proposed fixed link between the two provinces, construction estimates among the participating private developers and certain individuals have fluctuated considerably. Former member of Parliament for Hillsborough and Minister for the Environment Thomas McMillan stated in the Journal-Pioneer on April 11, 1985.

> "... the developers believe they can build a causeway for a fraction of the $650 million cost estimated as recently as 1982. You would not be far off if you surmise it (the developer's estimate) would be half the cost (of the $600 million)."

Again, the former member of Parliament for Hillsborough stated on May 28, 1985, this time to the Guardian-Patriot,

> "The least it could be built for is in the area of $350 million."

This leaves us to believe the cost of construction would never be that great where the private capital market could provide the financing.

One month later on June 26, 1985, a consortium of Lavalin Inc., Canadian National, and the Urban Transportation Development Corp. submitted a $400 million estimate for a 14 km. tunnel. At about the same time, a second proposal was put forward by a Nova Scotia company estimating the cost could be $350 million for a route made up of bridges, two causeways and an underground tunnel. It was only several months later that both of these proposals became official bidders for the transportation link between the two provinces. The first became known as Omni Systems and it stated the company's proposal to build a $500 million fixed tunnel linkage between Prince Edward Island and New Brunswick. The second proposal was submitted by Joe Shannon of Atlantic Corporation and John Chisholm of Nova Construction Ltd. at an estimated cost of $350 million for a fixed causeway-tunnel-bridge link.

It did not take a long time for these companies to dispute the other's cost estimates. Ed. Brezina, representing Omni Systems, said on February 20, 1986, his group wants to dispel the idea that a fixed crossing can be built cheaply. He was questioning the Nova Scotia builders proposal. The causeway section alone would cost $650 million, the two bridges $200 million and the central tunnel another $150 million. Total cost would be approximately $1 billion.

Some eight months later on October 23, 1986, Joe Shannon and John Chisholm of the Nova Scotia builders group formed a new company - Abegweit Construction. They proposed to build a 13 km bridge estimated at $500-600 million. Shannon said the bridge would be designed for a 100 year lfie span, would be privately financed and operated for the first 25 years at which time it would be turned over to the federal government for $1.

In between these developments, Northumberland Bridge Builders (a consortium of Peter Kiewit and Sons, PCL and Dominion Bridge) announced on June 24, 1986, a proposal to construct a bridge spanning the Northumberland Strait at a cost of $500 million. However, Stan Smith, Vice President of Omni Systems said on August 19, 1986, that the Northumberland Bridge Builders proposal would most likely cost in the area of $800 million. Definitely by all observations, there was a competitive battle of cost estimates going on among the developers which would be common practice in such a situation. Also, in such a situation, it is interesting to note that the opinions of others in relation to one's estimates have some value for consideration.

It is from this point, I ask what mechanism will the federal government put in place to insure the proposed transportation link, between Prince Edward Island and New Brunswick will be built as , designed and for the price quoted? How many projects of this magnitude gain their own momentum? One unforgettable example of such a case in point and still mired in debt is Montreal's cost over trampled Olympic Stadium (The Big "O"). There are other examples and there will be more examples, but I do not want to see the proposed fixed link between P.E.I. and N.B. become one of them.

The Process

During the period of the plebiscite, Glen Duncan of Public Works Canada made some very specific promises. On Jan 4 at a public meeting at Holland College in Charlottetown, Glen Duncan assured the concerned audience that

> the federal government won't approve the construction of a fixed link if it poses an environmental hazard or if it will cost more than the ferry services to operate.

He also stated that the federal government would monitor the construction but "we're not putting a nickle into it till it's finished."

Two days later, Glen Duncan assured the P.E.I. Fishermen's Association that a bridge would not be built unless "we were 100 per cent sure there would be no damage to the fishery". He further stated "There is no way a fixed crossing will be built if it impacts on fishing. It doesn't matter if 100 per cent of the people vote for it."

Concerns expressed on environmental, economic and socio-economic matters all received assurances that the environment would not be adversely affected, tolls would not increase from present ferry rates, and that other concerns would be addressed.

Premier Ghiz stated however that "Tolls are set by the federal government; they run the service. We won't know what the tolls would be and Islanders will have to take that fact into account."

I realize that this panel is not to judge the efficacy of a tunnel proposal. However, the process which immediately eliminated that proposal on the issue of costs badly served a large number of people with environmental concerns regarding a bridge. With the presentation last night, even the question of excessive costs for tunnel construction seems to be in question.

The process from the outside has ignored the possibility of addressing the question of improved ferry service despite evidence that that is what the majority of Islanders would want. Meanwhile, our present ferry service has been ignored.

A new 150 car ferry for the Wood Islands Service was originally to be starting service this spring. One critic of the process says this delay is because Ottawa is stalling. The Vice-President of Marine Atlantic stated that such things as a sister ship for the Abegweit, a new channel dredged at Cape Tormentine creating a more direct route, a new stern thruster on the Abegweit, and expanded version of two existing ferries can be part of Marine Atlantic's plans. However, the process we are engaged in has currently negatively impacted on our present services.

The Assessment

Many of the experts assessing answers given to this Panel by Public Works Canada have indicated that the information to date has been inadequate either as a reasonable attempt or as a base for public hearings.

Dr. Keith Storey, Community Resources Services Ltd., St. John's, Nfld, January 24, 1990:

> "While supportive of both a reasonable attempt to answer Panel's questions and there has been a sufficient base for

discussion at final public hearings, he warns "we still understand very little about the ways in which social and economic systems work, and that, as a consequence, we are generally poor at predicting, with any degree of precision, the impacts of major developments on these systems. ... There is little in this document that suggests any possibility that the conclusions drawn may be wrong, nor are any recommendations made to implement monitoring mechanisms to check to see if they are right."

M.J. Dadswell, Associate Professor, Biology, Acadia University, January 15, 1990:

He identifies "some problems of questionable assessment and certainly some incorrect and contradictory statements". Concerns focus on marine animals; ice-out delays; fisheries, terrestrial habitats; tides, currents, and shore dynamics, etc.

Dr. Phillip H. Byer, Technical Expert on Risk Assessment, University of Toronto, January 29, 1990:

Questions on terrestrial habitats, "groundwater (increased tourism); cumulation effects - groundwater; risk, contingency, planning and mitigation; risk, generic plans; environmental and socio-economic effects; and environmental, socio-economic all do not provide a reasonable attempt or a base for public hearings.

Public hearings on crossing should not proceed at this time.

Dr. Thomas W. Kierans, P.Eng., St. John's, Newfoundland, January 24, 1990:

Feel's panel's logical request for a risk benefit diagram should have been addressed. "Acceptance of a very long bridge means exposure to high safety risks, costs, environmental harm, and weather delays."

Many other criticisms on inadequate information available has been made on fishery concerns by the P.E.I. Fishermen's Association. It is clear that studies regarding the impact on fisheries should be commissioned not by Public Works Canada but by the Department of Fisheries and Oceans.

Concerns about travelling on the Bridge during adverse weather conditions - icing, wind, freezing rain and blowing snow seem to be borne out in Professor Dadswell's comment that crossing the bridge, which will be up to 49 meters above the sea, may be "rather exciting" during storms. As we have also heard recently, weather conditions like freezing have also caused serious problems with the local Hillsborough Bridge necessitating its closure during one of the busiest periods in the year.

The economic and social concerns which have not been fully addressed include the economic impact of removing 600 full time permanent jobs from the economy with the resultant loss of spin off effects. The cost of tolls whatever they may be would be dollars which would be leaving this economy to pay off a capital debt rather than on jobs and local materials. The tourism predictions have certainly not taken into account that the ferry places an important aesthetic role. As stated by an earlier witness, 84% of New England visitors call the ferry attractive. The concept of a bridge calls into question what type of tourist we would attract. In my review of all the newspaper clippings related to this issue (over 1000 pages!), it is obvious that most tourists who expressed an opinion on this issue either in an interview or letters to the editor, counselled against it because the nature of the Island itself which originally attracted them could be threatened.

The decision to go ahead on this project would be one which would be irrevocable; however, further time allows for more questions to be answered and more options to be considered.

PRESENTATION TO THE ENVIRONMENTAL ASSESSMENT PANEL
ON THE
NORTHUMBERLAND STRAIT CROSSING PROJECT

SUBMITTED BY

P.E.I. COUNCIL OF THE CANADIAN FEDERATION OF LABOUR
C.F. OF L.

MARCH 1990

Mr. Chairman, members of the panel, ladies and gentleman the following submission is presented on behalf of the P.E.I. Council of Labour which is the Provincial Affiliate of the Canadian Federation of Labour. The Council is composed of 11 trade unions who in turn represent more than 1,100 of the economys organized workforce.

The position as adopted by the Council pursuant to much discussion and debate on the topic is as follows: The Council supports the project in the form of a bridge construction and that a full socio-economic impact study be carried out.

The Council finds itself in the interesting position of having to view this question from a middle ground. Much has occurred since discussion on this topic began. Sides have become polarized with unfortunate and often not helpful characterizations of the opposing points of view. We do not view those who are opposed to the project in any particular manner. Similarly so we are not prepared to immediately accept that the proponents of the project are the complete arch villians they have been protrayed to be.

We have taken the time to go to the Public sessions and have listened intently to the discussions. We have found that the people who are making their views known are doing so out of concern (both for and against) and they deserve our congratulations for their effort and involvement in this process.

It is for good reason that we say we are not prepared to share in the characterizations of the opposing viewpoints.

As people who live on and enjoy this Island we wish to preserve it and promote it's enhancement through economically sound and environmentally safe development which is in keeping with the Island's inherent nature and makeup. The environment is of concern and so is the preservation of the mainstay industries such as fishing and farming.

As representatives in the Labour movement we are not easily lead to adopt what any developer would have to say. After all developers are employers. Our history of negotiating benefits for our members have taught we well regarding the vested interests which all parties have.

I have used the word enhancement and that is exactly what we wish to promote. Enhancement means to build on what is in existence and but not at the expense of. The issues of concern as they seem to have evolved are: 1). Loss of Jobs at Marine Atlantic 2). Effects on the fishing industry 3). Environmental impact and 4). The Island way of life.

With respect to the Marine Atlantic Workers I would like to state that the Council does not wish to mislead the panel or the public into thinking that we or any of the affiliated members are the bargaining agents for them.

Having said that, the Council is in full support of a package involving full econimic security or alternate employment for any Marine Atlantic Employee displaced as a result of the ceasing those operations. Any such agreement can be negotiated to run outside of the time limits of the normal collective agreement. Once set in place it would remove the uncertainty many experience in relation to their economic future.

Change is undoubtedly the hardest things we as human beings can ever under take. The loss of jobs as a result of the termination of services is definitely one of the examples of change most difficult to make. These difficulties are best handled however when they are managed properly. The concerns as expressed by the representatives of the Ferry Workers must become a paramount issue in any further consideration of a fixed link.

These concerns have not been addressed adequately. We have heard repeatedly that not one group or body involved with the promotion of this project have sat down and discussed these issues with the Ferry Workers. People must come first. We urge the parties to commence immediately some form of round-table discussions. This would involve the Federal Government, Marine Atlantic as the employer and Public Works as the proponent talking to the representatives of the employees.

There has to be secured agreements with any developer to employ displaced Marine Atlantic employees. Promises of pressure to be brought to bear upon a successful contractor are not sufficient in the eyes of the Council.

A program for funding retraining specifically designed for displaced Marine Atlantic employees is also a requirement. This to be co-managed by C.E.I.C., Marine Atlantic and the representative Unions.

Concerns similar in nature to those of the Ferry Workers were expressed by the Fishermen. They would appear to be two fold: The first having to do with those who would be displaced by the presence of a structure and second the environmental effects on those in nearby areas. Those people have every right to demand guarantees of adequate compensation. Their interests must be protected and the best possible way to insure that is through co-management. Their voice must not only be heard but assistance necessary for their interests to be represented must also be made available. What I heard in these presentations were expressions of great distrust. Co-Management of the solutions to the problems would go a long way towards allievating that distrust and ensuring a wise and judicious approach to the project.

The concerns in regard to the environment are also real and very legitimate. Promises of safe conduct do little to allievate people fears. Thankfully environmental concerns have become in this province everyone's issue as opposed to being charactarized as the issue of a few on the fringe of society. Any such characterizations were unfortunate and indeed detrimental. In the course of listening I was once again struck with the sense of distrust which is so to speak " out there ". It is with good reason that these feelings exist as one need only think back to the questions raised and answers given in regard to the building of the various inland causeways. Islanders with concerns were assured by the experts, many of them from areas other than this Province that all would be fine. The effects on the environment through the destruction of a number of inland waterways as a result of the construction of the causeways stand as a constant reminder that the experts were wrong.

The problem here however was not the solution but the manner in which the solution was managed. With a view to avoiding and limiting such damaging effects the Council proposes that a body of interesed parties not connected with the developer or the contractor be established and funded to ensure that these concerns as they have been raised and addressed and future ones receive the consideration they deserve. The representatives would include a sizeable number from the group who are opposed. Their input should be funded with guaranteed funds and with power as a body to influence the project. The solution as proposed by Public Works regarding a Gov't Departmental Environmental watch dog with power to recommend only is not sufficient by itself.

As to protection of Island way of life the Council does not question the value of the Island way of life and the need for efforts to ensure it's continued existence. The Council does question the extent to which that Island way of life as expressed by some of the opponents is shared by the residents of this province. Believe me when I tell you that any seemingly idyllic existence is very rapidly shattered when chronic unemployment robs a family of this pride. Unfortunately I have not heard the voice of the large number of chronically unemployed at these hearings. If I had, I wonder what would have been said.

In closing, I would like to commend those who have been involved with this process. To you the committee who have endured many hours of listening to which a posterior portion of my own body can attest to the trial of. To you Mr. Chariman for your skill and caring so deftly displayed during the course of these proceedings. To the representatives of Public Works and their associates for the courtesy displayed throughout these proceedings.

Most of all we believe a large measure of congratulations should go to all the presentors Mr. Chairman. Their belief and participation in this process does stand as a tremendous sign of that which we all believe in.

Thank You !!!

- A Brief -

entitled

"Trucks Crossing the Northumberland Strait"

Presented to the

Environmental Assessment Panel
Reviewing the Northumberland Strait Crossing Project

at the

Final Public Hearings

March 30, 1990

Prepared by

Atlantic Provinces Trucking Association
567 Coverdale Road, Suite 7A
Riverview, New Brunswick
E1B 3K7

Phone: (506) 387-4413

Dale Elliott, P.Eng.
Executive Director

Lowell Hogg
P.E.I. Vice President

Introduction

The Atlantic Provinces Trucking Association (APTA) is pleased to be able to submit this brief to the Environmental Assessment Panel considering the construction of a fixed link across the Northumberland Strait to Prince Edward Island.

The APTA would like to point out that we represent over 550 members in the Atlantic Provinces including both common and private carriers, owner operators and anyone having an economic interest in the trucking industry. A directory of our current membership is attached. The purpose of the Association is to promote the general well being of the trucking industry through research and education.

Members have expressed concern that the transportation system to P.E.I. at present results in an economic burden to Canadians. This comes as a result of the additional costs and delays inherent in the present marine system, as well as the loss of investment and employment opportunities in Prince Edward Island. In addition, the environment is being burdened by the present system in terms of increased air pollution as a result of traffic delays during loading and unloading.

For the above reasons, the APTA wishes to go on record as strongly supporting the construction of the fixed link to Prince Edward Island. The APTA wishes to make comments regarding the impact of the fixed link in the following three areas:

(a) economic considerations
(b) environmental impact
(c) the impact of a tunnel or a bridge on the trucking industry.

ECONOMIC CONSIDERATIONS

Each time a truck crosses the Northumberland Strait, truckers estimate that an additional cost of $30 - $50 above the ferry rate is incurred in terms of delay and opportunity lost costs on the ferry system as compared to utilizing a fixed crossing. Some truckers have estimated that it costs an additional 10 cents a mile or approximately 10% of line haul rates operating to Prince Edward Island to cover items such as lower utilization of equipment. Considering that over 150,000 trucks cross between Cape Tormentine and Borden each year, the total burden of these delays in loading, increased transit times, unloading and waiting is estimated by the APTA to exceed 10 million dollars per year. A similar study done by the Atlantic Provinces Transportation Commission came to similar conclusions on the estimate of the total potential cost benefits of a fixed link on the trucking industry. A copy of their report is attached in Appendix 1 for reference.

Since the trucking industry must carry its traditional share of the market plus intermodal traffic as all rail traffic to Prince Edward Island has ceased; it is imperative that the benefits of the most efficient transportation systems be utilized. Transportation cost savings are critically important to industries today as competition in world markets become more intense.

Since many trucks must move across the Northumberland Strait empty, this can mean an additional cost burden for shippers as delays can occur on both crossings. As an example, if a trucker is required to move an empty trailer to Prince Edward Island in order to pick up a load of potatoes, an additional cost of $100 can be expected. This often means that servicing these industries on Prince Edward Island is very difficult in a competitive situation.

A random survey of truck rates by the APTA revealed that rates are often 10% higher to Prince Edward Island than similar distances on the mainland. Such additional costs are a burden to Prince Edward Island shippers and receivers. The APTA is certain that these higher cost factors tend to inhibit industries from locating on the Island.

ENVIRONMENTAL IMPACT

The construction of a fixed link would have a very positive impact on the environment that truckers must operate in every day. At present commercial drivers must operate under stressful working conditions. These stresses include automobile traffic constantly "rushing to catch the ferries," delays due to tourist traffic, traffic queuing before and after loading, and waiting time. Trucks are usually on time schedules in todays competitive environment. The demands for "just in time" deliveries to minimize inventories and the handling of perishable or time sensitive cargoes means that truckers usually are on time schedules. It is difficult enough for drivers to operate today on the highways of Atlantic Canada due to congestion and poor highway maintenance. Operating trucks under such conditions is more difficult due to the frequent braking and acceleration that is required.In the future truckers will also face fines and the possible loss of operating licenses and livelihood should they exceed the new Hours of Service regulations by an hour or so. It has been estimated that a trip from Summerside to Moncton takes 4 hours utilizing the ferry service. This would compare to 2 hours on a fixed link. For a trucker who has a load of say potatoes starting a trip from a Prince Edward Island origin point, the additional 2 hours of being tied up with the ferry crossing can lead to the possibility of fatigue later in the driving shift. Hence, any delays in using the ferry service can be exceedingly critical and stressful to commercial drivers as compared to say tourist traffic.

Over a period of time these stressful operating conditions can lead to less driver productivity and reduced safety. In fact, some accidents have already been attributed to operating under these conditions. In time, "driver burnout" will occur at a time when Canada is already experiencing a shortfall of good, qualified and experienced drivers. The APTA would urge the Environmental Assessment Panel to consider these additional training costs that must be borne by the trucking industry as well as the impact of safety.

The trucking industry is also of the opinion construction of the fixed link will enhance the quality of air in the environment. At present, with over 850,000 vehicles utilizing the ferry service, air pollution is a factor that the Environmental Assessment Panel should consider. Queuing of traffic on both ends with the ferry service means that vehicles must either be idling or moving at a very slow pace. These delays could add an additional 15 - 30 minutes on the average on each crossing where vehicles are contributing to air pollution. When one considers the amount of emissions that results from these vehicles plus the amount of air pollution resulting from the operation of the ferries themselves, the APTA feels it could only be beneficial from an environmental viewpoint to construct a fixed link.

BRIDGE or TUNNEL?

The APTA supports a bridge being built rather than a tunnel. The reason for this is because of the possible restrictions that could be placed on the free flow of traffic in the handling of goods that could be deemed "dangerous" in movements in a tunnel. The scenario that concerns truckers is that the transport of many ordinary goods that are not dangerous on ferries nor on the highways could become dangerous being transported in a tunnel. Some of these ordinary goods could include commodities such as house paints, fertilizer, oven cleaners, carbonated beverages, etc. It is the understanding of the APTA that many tunnels around the world have severe restrictions on the movement of these commodities due to the severity of the accident that can result. As an example, the APTA understands that the movements of fertilizers could be restricted in a tunnel due to the possible release of poisonous gases should this commodity be involved in an accident with another truck carrying a commodity such as carbonated beverages or diesel fuel.

While each tunnel is unique and have their own operating rules, the APTA would urge the Environmental Assessment Panel to insist that a complete traffic analysis be done on how dangerous goods might be handled in a tunnel. The analysis should determine the quantity of dangerous goods that move to Prince Edward Island and evaluate methods of handling same. For instance, given the strong agricultural base on Prince Edward Island, the APTA estimates that 40% of 150,000 truck crossings per year could face some restrictions in a tunnel due to the dangerous goods factor. On a bridge probably less than 5% of the crossings might face restrictions. A traffic analysis should be done to verify these assumptions.

In other scenarios, it has been suggested that dangerous goods traffic could be handled on a continued ferry service or by restricting truck and automobiles with propane movements in the tunnel to say a 15 minute period every hour. However, the APTA feels that both of these options would create a number of difficulties and hazards. Requiring an alternate ferry service would mean that the ice would be required to be kept broken by a few crossings per day that would prove to be extremely expensive. We are not aware of any similar operational situations for tunnels in the world where such heavy ice would be encountered. In the case of the Montreal tunnel where trucks carrying dangerous goods are restricted, alternative bridges are utilized.

Restricting dangerous goods truck traffic in a tunnel to certain periods would mean that both cars and trucks would be delayed at certain times. Also, the potential for a major accident would increase should all of the dangerous goods movements be concentrated in a time frame. Concentrating the movements of dangerous goods such as fertilizer, fuel oils, propane, liquid oxygen into a short 15 minute period could prove disastrous in a tunnel. The drivers of such vehicles would find the operating environment to be very stressful!

Another factor that should be considered with a tunnel is the question of who would have jurisdiction regarding regulations for the movement of dangerous goods. At present the movement of dangerous goods comes under both federal and provincial regulations. Although there is one federal code that is supposedly the same across Canada; it is enforced by provincial regulators. Truckers are faced with confusion and lack of uniformity between jurisdictions. An example of this situation is documented in Appendix 2. The APTA is concerned that should dangerous goods regulations be applied by a tunnel authority, you could have four different interpretations in moving 15 miles, i.e.

1. the Northumberland Strait Tunnel Authority
2. the Province of Prince Edward Island,
3. federal regulations
4. the Province of New Brunswick

Everything must be done to avoid these problems.

CONCLUSIONS

The Atlantic Provinces Trucking Association is of the opinion that the construction of a fixed link across the Northumberland Strait would have a positive environmental impact by:

1. Reducing the stress on both commercial and other drivers by being able to operate freely on the new system with few delays,
2. Improved safety benefits on the highways,
3. A decrease in the amount of air pollution emissions with fewer delays and hence an improvement in air quality.

These conclusions follows as a result of 2 - 3 years of discussions and debate at the APTA and meetings with people regarding the construction of the fixed link. This support is based on the APTA's understanding that tolls on the fixed link would not exceed those on the ferry system. We would also like to state that it should not be a reflection on Marine Atlantic nor its employees; who have provided the trucking industry with excellent service over the past few years utilizing the marine system capabilities available!

We have adopted the position that construction of the fixed link should only proceed if there are no serious detrimental impacts on the environment. Should the fishing, agriculture or any other industry be seriously harmed by environmental change; then ultimately the trucking industry would also lose. From our reviews of the environmental assessment to date, such harm does not appear likely. Again, we can only conclude that construction of a fixed link will have a positive impact on the environment.

Since it also appears that it has been proven that construction of the fixed link will be of great economic benefit, the APTA would urge that construction begin as soon as possible. We also support a bridge as the preferred option until traffic and risk management analysis could prove a tunnel as a feasible option for handling dangerous goods.

To conclude, the APTA would like to commend the Environmental Assessment Panel for doing such a thorough job in researching the socio-economic and environmental impacts of the Northumberland Strait crossing. We believe sufficient research and evaluation has been done by the Panel to allow for an early start on the construction.

Construction of the fixed link will benefit every resident of Prince Edward Island through savings in transportation costs for items such as bread, foodstuffs, clothing, etc. These savings are estimated to exceed 10 million dollars and are crucial to the future economy of Prince Edward Island. Again, the APTA urges the Panel to give a "green light" for the project to proceed.

Should you wish more information or details on the research that has been done by the APTA, we would be pleased to share this information with the Panel.

Atlantic Provinces Transportation Commission

P. O. Box 577
Moncton
New Brunswick
E1C 8L9

Tel. (506) 857-2820
Fax. (506) 857-2835

-Appendix 1-

AN ANALYSIS OF THE POTENTIAL COST SAVINGS TO PRIVATE AND COMMERCIAL MOTOR CARRIERS WITH A FIXED CROSSING TO PRINCE EDWARD ISLAND

PREPARED BY

THE ATLANTIC PROVINCES
TRANSPORTATION COMMISSION

FEBRUARY, 1990

Sponsored by the governments of Nova Scotia, New Brunswick, Prince Edward Island, Newfoundland and Labrador. Affiliated with the Atlantic Provinces Chamber of Commerce. Offices: Suite 210, Commerce House, 236 St. George Street, Moncton, New Brunswick

At the September 23, 1986, Board of Directors' meeting of the Atlantic Provinces Transportation Commission (APTC), staff was authorized to prepare an evaluation of the cost savings to shippers and receivers by a fixed crossing between New Brunswick and Prince Edward Island. The cost saving analysis would be based solely on the saving in time to private and commercial motor carriers resulting from the fixed crossing versus the present ferry system. This paper is an update to the previous analysis done in 1987 and 1989.

Please note that a change has been made in the assumption concerning Northumberland Ferries traffic. This paper assumes that 50% of Northumberland Ferries commercial traffic would divert to the fixed crossing, whereas previous papers assumed that 100% of Northumberland Ferries commercial traffic would utilize the fixed crossing. However, the reduced crossing time via a fixed link is also assumed to be offset by the longer highway distance involved. As a result, Northumberland Ferries commercial traffic is not included in the estimated time cost savings.

A fixed crossing, would result in an approximate twelve minute crossing time between New Brunswick and Prince Edward Island. The current Marine Atlantic ferry crossing is 45 to 60 minutes from terminal to terminal and the crossing by Northumberland Ferries is one hour and 15 minutes. The actual time involved by using the ferry system varies depending on the time of year and traffic conditions.

Discussions with the Atlantic Provinces Trucking Association and a major common carrier operating between New Brunswick and Prince Edward Island indicates that the additional travel time for queuing and waiting between the mainland and the Island ranges from a minimum of one hour to a maximum of 6 hours.

An analysis conducted in 1982 by the APTC involving the movement of potatoes indicated that the average time for the ferry crossing between Cape Tormentine and Borden was 2 hours per crossing. This was verified by similar analyses made by the Department of Transportation for the Province of Prince Edward Island. Subtracting the 12 minute drive via the fixed crossing the estimated time saving is one hour and 48 minutes or 1.8 hours.

In order to determine the cost per hour of a tractor-trailer plus driver, the APTC did some sampling based on previous private trucking studies and determined that a tractor-trailer unit cost ranges from $25 to $30 per hour. The major motor carrier contacted estimated the cost as ranging from $35 to $40 per hour. A straight truck was estimated as costing $25 per hour.

Ferry crossing statistics for the calendar year 1989 are as follows for commercial traffic:

Marine Atlantic
(12 Month Period Ending December 31, 1989)

Straight Trucks	24,307 Units
Tractors & Trailers	128,141 Units
Rail Tonnage	25,599 Tons

Northumberland Ferries Ltd.
(April 24 to December 6, 1989)

Commercial Vehicles	21,228 Units

Some assumptions have been made in order to determine the cost savings from a fixed crossing:

1. Rail tonnage would move by tractor-trailer at 25 tons per unit. Some rail traffic may not be converted to highway tractor-trailer and may move via alternative transportation modes such as direct vessel movements, however for the purposes of this analysis a strict conversion to highway has been assumed.

2. Fifty percent of Northumberland Ferry commercial traffic would be diverted to the fixed crossing. Northumberland Ferry traffic moving via the fixed crossing would require additional highway travel costs to Cape Tormentine, however it is assumed that this will be offset by the shorter transit time via the crossing.

The following are the calculations of the cost savings:

Minimum Savings ($25/Hour Straight Trucks and Tractor-Trailers)

1. Straight Trucks
   24,307 units
   @ $25 per hour X 1.8 hours
   = $1,093,815

2. Tractor-Trailers
   128,141 units
   @ $25 per hour X 1.8 hours
   = $5,766,345

3. Rail Conversion to Tractor-Trailers
   25,600 tons divided by 25 tons = 1,024 units
   @ $25 per hour X 1.8 hours
   = $46,080

   Total Cost Savings (Total 1, 2 & 3) = $6,906,240

Minimum Savings $25/Hour Straight Trucks and $35/Hour Tractor-Trailers

1. Straight Trucks
   24,307 units
   @ $25 per hour X 1.8 hours
   = $1,093,815

2. Tractor Trailers
   128,141 units
   @ $35 per hour X 1.8 hours
   = $8,072,883

3. Rail Conversion to Tractor-Trailers
   25,600 tons divided by 25 tons = 1,024 units
   @ $35 per hour X 1.8 hours
   = $64,512

   Total Cost Savings (Total 1, 2 & 3) = $9,231,210

The above analysis appears to indicate that given a time savings of 1.8 hours, the cost savings to commercial traffic will range from $6.9 million to $9.2 million per year. It is possible that the time savings could average out to be greater than 1.8 hours considering such things as the varying schedules and summer tourist traffic.

An additional benefit would result from the greater utilization of equipment for those motor carriers serving Prince Edward Island and the mainland. As an example, at the present time a round trip between Moncton, NB, and Charlottetown, PE, requires an average of 8 hours via the ferry service. The round trip between Moncton, NB, and Saint John, NB, a similar distance, takes an average of 4 hours, or one-half the time required for the Moncton to Charlottetown run.

Dated in Moncton, NB
February 21, 1990

- Appendix 2 -

Day & Ross Inc.

MANITOBA

WINNIPEG

ONTARIO

CAMBRIDGE
TORONTO
LONDON
WINDSOR

QUEBEC

MONTREAL
QUEBEC CITY

NEW BRUNSWICK

HARTLAND
FREDERICTON
SAINT JOHN
MONCTON
BATHURST

NOVA SCOTIA

TRURO
KENTVILLE
DARTMOUTH
NEW GLASGOW
PORT HAWKESBURY
SYDNEY

PRINCE EDWARD ISLAND

CHARLOTTETOWN

NEWFOUNDLAND

ST. JOHN'S
CORNERBROOK
GRAND FALLS
MARYSTOWN
CLARENVILLE
ST. ANTHONY
PORT AUX BASQUES

HEAD OFFICE

P O BOX 540
HARTLAND N B
E0J 1N0
(506) 375 4401

January 31, 1990

Louis-Paul Tardif
General Manager
Canadian Trucking Association
130 Albert Street, #300
Ottawa, Ontario K1P 5G4

Louis-Paul:

On January 11, 1990, a Day & Ross unit was stopped at the scales at Westhawk Lake, Manitoba.

The load contained a small amount of class 5.2 and 567 pounds of other dangerous goods, comprised of classes 2.1, 3.2, and 8. A 5.2 placard was on the unit when it was stopped.

A ticket was issued (No. 88-024474) for improper or missing safety marks. The issue here is whether or not we should have displayed the "Danger" Placard according to section 5.17 or displayed only the 5.2 placard as stated in section 5.19 of the Dangerous Goods regulations.

In another case similar to this, we paid a voluntary fine rather than spend considerable monies in fighting it. Before paying, I had several conversations with Mr. Wilson from Manitoba and Robbie Tomason of Transport Canada. Although both Mr. Wilson and I were verbally informed by Transport Canada that the danger placard was not needed, he would not withdraw the charge.

Now that we are faced with another charge, we have to stop and consider the consequences of this interpretation of the regulations.

The most far reaching effect would be to retrain some 1800 drivers, dispatchers, managers, and freight handlers. All have been trained to placard in compliance with section 5.19 of the regulations.

Canada's transportation leader

If we are going to retrain these people, do we train them to placard differently only trailers that pass through Manitoba, or do it this way for all provinces? If we use Manitoba's interpretation in other provinces, will we be in violation there?

Drivers would have to carry a set of Danger Placards for use in Manitoba only, much the same as drivers do for Marine crossings of 4400 pounds or more of consumer commodities.

City drivers would have to ask customers for a set of danger placards for amounts of less than 500 kilograms, according to section 5.5 (1) (a) and (b).

A shipper in Newfoundland will be concerned about a danger placard for Manitoba to about the same extent that a Manitoba shipper would be about a placard for a ferry to Newfoundland.

In order to facilitate any retraining, we would have to retape our video presentation at a cost of approximately five or six thousand dollars. This does not include training costs for the 1800 employees who would have to view the program.

As you can well imagine, we would most likely create a state of confusion in order to comply with a province of exception.

The most consistent regulations are the most understandable ones and easiest to comply with.

Isn't that what we all want?

Don Peabody

Don Peabody
Supervisor
Driver Training

DP/aa

Enclosure

CANADIAN TRUCKING ASSOCIATION
ASSOCIATION CANADIENNE DU CAMIONNAGE

February 20, 1990

D-100

Hon. Benoit Bouchard
Minister of Transport
House of Commons
Ottawa, Ontario
K1A 0A6

Re: Enforcement Dangerous Goods

Dear Mr. Minister:

I would like to bring to your attention a case that exemplifies the necessity of uniformity in the enforcement of dangerous goods regulations.

Recently, a carrier based in New Brunswick with operations from Newfoundland to Manitoba ran into a case where a provincial enforcement agency took upon itself to provide a new meaning to federal regulations even though Transport Canada Dangerous Goods Directorate persistently maintained its original interpretation.

The principles of uniformity behind the transportation of dangerous goods regulations are, we hope, still valid with all governments. In a letter dated November 29, 1989 our Association was asking you to reiterate your support for the program and the need to co-ordinate the efforts of all governments. This latest example showed us the need for such co-ordination.

The consequences of a lack of co-ordination are well exemplified in the attached letter from the carrier in question here. Interprovincial carriers can simply not cope with regulatory chaos.

We have yet to hear your response on the need for more co-operative efforts but in the meantime, isn't there something your department and the Manitoba Government agency responsible for the enforcement of the transportation of dangerous goods regulations could do to sort out this misunderstanding?

Any effort on your part would be appreciated.

Yours truly,

Louis Paul Tardif

Louis-Paul Tardif
General Manager

cc: Dr. John Read
Don Peabody

130 rue ALBERT Street, SUITE 300 — OTTAWA, ONTARIO K1P 5G4 TELEPHONE: (613) 236-9426 FAX: (613) 563-2701

Mr. Chairman and Members of the Environment Assessment Panel, Ladies and Gentlemen:

My name is [redacted] I am Chairman of the [redacted] Our Council represents seventy plus potato growers who contract their crop to either Cavendish Farms or McCain Foods. We welcome this opportunity to meet with you this afternoon and express our views and concerns.

The potato industry in Prince Edward Island has, in the past, been a growth industry and the processing sector in particular has experienced phenomenal expansion over the past decade. Recent announcements of additional processing plants being built here on Prince Edward Island were greeted with much enthusiasm by potato growers, as well as those people who are aware that the potato industry is the engine that drives the economy of Prince Edward Island.

Those of us involved in the potato industry recognize the need for reliable and timely transportation of our product to the marketplace. Potatoes are a high volume, but a low per unit value good, as compared with most products. Thus, transportation costs have a far greater bearing on potatoes than almost any other food in the produce section of any supermarket. The availability and cost of transportation to our major markets in Central Canada and the Eastern Seaboard of the United States is crucial to the potato industry here on P.E.I.

We, as potato growers, view this current debate on the fixed link as our last chance to become several hours and millions of dollars closer to our markets and the opportunity for our industry to survive and prosper.

Transportation costs to Island farmers is a double edged sword. So far, I have just mentioned the movement of our product to the marketplace. There are many thousands of tons of fertilizer, fuel and lime that must be trucked to Prince Edward Island each year. Most of the building material, farm chemicals and farm equipment must also be ferried across a nine-mile expanse of water. In an era where time is money and, when you are not on time, you are out on money, the time lost while crossing the ferries is money lost and opportunities lost. We, the Prince Edward Island Potato Processing Council, view the proposed fixed link to New Brunswick as an important and confident step into our future. With respect to the environmental impact of this project, we, as do all Islanders, would like to see the deleterious environmental effects kept to a minimum.

In conclusion, Mr. Chairman, this panel has, in the last number of days and weeks, heard many accounts of the "Island's way of life" and the need to preserve this "way of life". I am confident that there were as many descriptions of this way of life as there were individuals who sought to describe it to you. The potato growers of this province also have a way of life, a life of hard work, self reliance and risk taking, a living that has known both good times and bad, a life of coaxing the good earth to yield some of the best potatoes to be found anywhere in the world. Island potato farmers are entrepreneurs, they are innovators, they are the movers and shakers of the Canadian potato industry. We have developed new products and packaging designs; we have aggressively sought out and maintained new markets by supplying them with top quality P.E.I. potatoes. This is our way of life and we are very proud of it. We feel that if we are to remain competitive in the upcoming decade and indeed into the next century, we must have a modern transportation system, complete with a fixed crossing to the mainland and to our markets in North America and worldwide.

Respectfully submitted,

Vernon Campbell, Chairman,
P.E.I. Potato Processing Council.

GOOD AFTERNOON

MR. CHAIRMAN, AND MEMBERS OF THE ENVIRONMENTAL ASSESSMENT PANEL - LADIES AND GENTLEMEN.

MY NAME IS STUART AFFLECK AND I AM THE SECRETARY-TREASURER OF THE PRINCE EDWARD ISLAND POTATO MARKETING COMMISSION. THE PURPOSE OF MY SUBMISSION IS TO OUTLINE TO THE PANEL, THE VITAL ROLE TRANSPORTATION HAS WITH RESPECT TO THE POTATO INDUSTRY, AND THEREFORE OUR SUPPORT OF THE FIXED CROSSING PROJECT.

THE PROPOSED CONSTRUCTION OF A FIXED LINK CONNECTING P.E.I. TO THE REST OF CANADA HAS CREATED A LOT OF DISCUSSION AND DEBATE IN P.E.I. OUR FEDERAL AND PROVINCIAL GOVERNMENTS HAVE INDICATED SUPPORT FOR THE CONCEPT, SO IT IS NOW UP TO INDIVIDUALS AND GROUPS TO VOICE THEIR OPINION. WE APPRECIATE THIS OPPORTUNITY, AND TRUST OUR COMMENTS WILL ASSIST YOU IN FORMULATING YOUR RECOMMENDATIONS.

IT IS THE OPINION OF THE POTATO MARKETING COMMISSION THAT A FIXED LINK WOULD HAVE A VERY POSITIVE IMPACT ON THE P.E.I. POTATO INDUSTRY. THE INDUSTRY HAS A TREMENDOUS MARKET POTENTIAL IN CANADA AND THE EASTERN U.S. ONE OF THE LIMITING FACTORS IN DEVELOPING THIS HUGE MARKET IS THE LACK OF CONSISTENT TRANSPORTATION.

AT PRESENT THE P.E.I. POTATO INDUSTRY IS AT A COMPETITIVE DISADVANTAGE COMPARED TO OTHER POTATO PRODUCING REGIONS. THIS DISADVANTAGE ARISES FROM:

(1) HIGHER DIRECT TRANSPORTATION COSTS, AND

(2) INABILITY OF INDUSTRY TO REACT TO THE MARKET DELIVERY REQUIREMENTS, AND AT TIMES DIFFICULTIES EXPERIENCED IN OBTAINING SUFFICIENT TRUCKS DURING HIGH SHIPPING PERIODS.

AS INDICATED IN THE BRIEF PRESENTED BY THE ATLANTIC PROVINCES TRANSPORTATION COMMISSION, THE DIRECT COST SAVINGS RESULTING FROM THE CONSTRUCTION OF THE FIXED LINK TO AND FROM P.E.I. IS IN THE ORDER OF $6.9 MILLION TO $9.2 MILLION DOLLARS. IN 1989, IN EXCESS OF 20,000 TRUCK LOADS OF POTATOES LEFT P.E.I., REPRESENTING A POTENTIAL SAVING TO THE INDUSTRY OF $1.8 MILLION TO $2.4 MILLION DOLLARS. THIS SAVING IS DERIVED FROM LABOUR AND OPERATING COST REDUCTIONS RESULTING FROM A SIGNIFICANT DECREASE IN AVERAGE CROSSING TIME.

IT IS OUR UNDERSTANDING THAT TOLLS FOR A FIXED CROSSING WOULD CONTINUE TO BE IN THE CONTROL OF THE FEDERAL GOVERNMENT. THEREFORE, WE ANTICIPATE THAT RATES FOR EITHER THE FERRY SERVICE OR A FIXED CROSSING WILL BE VIRTUALLY THE SAME.

IN ADDITION THE POTATO FARMER IMPORTS BY TRUCK MOST ALL PRODUCTION INPUTS. THIS AMOUNT HAS NOT BEEN QUANTIFIED, BUT WOULD ADD SUBSTANTIALLY TO THE AMOUNTS NOTED ABOVE.

THE UNCERTAINTY ASSOCIATED WITH THE FERRY SYSTEM IS A LIMITING FACTOR IN OBTAINING TRUCKS, AND ACTS AS A BARRIER IN MEETING THE EXACTING DELIVERY REQUIREMENTS OF THE CUSTOMERS IN THE MARKETPLACE. FOR EXAMPLE, A TRUCK, EMPTY

IN HALIFAX, CAN LOAD POTATOES IN MAINE OR NEW BRUNSWICK AND BE IN BOSTON OR MIAMI 8 TO 24 HOURS AHEAD OF A TRUCK THAT CAME TO P.E.I. FOR A LOAD.

A FIXED LINK WOULD TEAR DOWN THE ACTUAL AND PERCEIVED BARRIERS OF DOING TRADE WITH P.E.I. WE FEEL VERY STRONGLY THAT IT ENHANCES OUR OPPORTUNITIES IN OBTAINING TRUCKS WHEN THE MARKET DEMANDS. WE FEEL TRUCKERS WOULD BE MORE AVAILABLE AND WILLING TO DO SHIPPING TO AND FROM THE ISLAND. IT WOULD ELIMINATE THE DELAYS DUE TO TRAFFIC AND ICE CONDITIONS. SHIPPERS WOULD BE ABLE TO SCHEDULE LOADING AND DEPARTURES MUCH MORE EFFICIENTLY.

A STABLE SUPPLY OF TRUCKS COMPOUNDED WITH MORE RELIABLE DELIVERY TIMES, WOULD ENSURE P.E.I. MAINTAINS AND MOST PROBABLY EXPANDS ITS MARKET SHARE AND ENABLE IT TO RESPOND TO FUTURE MARKET OPPORTUNITIES.

THE POTATO INDUSTRY IS A GROWTH INDUSTRY ON P.E.I. PRODUCTION HAS INCREASED FROM 12,000,000 CWT IN 1978 TO OVER 18,000,000 CWT IN 1988, OR A 50 PERCENT INCREASE IN JUST 10 YEARS. THIS IS REFLECTED IN CURRENT INCREASES IN FERRY TRUCK TRAFFIC, AND THE LONG DELAYS EXPERIENCED BY TRUCKERS HAULING P.E.I. POTATOES TO MARKET.

THE POTATO INDUSTRY WILL CONTINUE TO GROW. PRODUCTION IS EXPECTED TO INCREASE TO SERVE THE MAJOR PROCESSING PLANTS RECENTLY ANNOUNCED. THESE PLANTS ALONE WILL CAUSE A SIGNIFICANT INCREASE IN TRUCK TRAFFIC OFF ISLAND, ESTIMATED TO BE IN THE ORDER OF 10% OVER CURRENT LEVELS. GIVEN THESE

PROJECTS, AND ON-GOING INCREASES IN CURRENT MARKET SHARE, THERE IS EVERY REASON TO BELIEVE THE CURRENT GROWTH IN TRANSPORTATION REQUIREMENTS TO SERVE OUR INDUSTRY WILL CONTINUE OVER THE FORESEEABLE FUTURE.

AS THE INDUSTRY GROWS, SO DOES THE IMPORTANCE OF HAVING AN IMPROVED TRANSPORTATION SYSTEM TO AND FROM P.E.I. IMPROVED TRANSPORTATION IS ONE OF THE KEY ELEMENTS TO THE INDUSTRY'S ABILITY TO RESPOND TO FUTURE MARKET OPPORTUNITIES.

SOME QUESTIONS HAVE BEEN RAISED CONCERNING POSSIBLE DELAYS IN ICE-OUT, AND SUBSEQUENT EFFECT ON TEMPERATURES AND GROWING SEASON. THIS QUESTION HAD BEST BE LEFT TO THE EXPERTS. HOWEVER, BRIDGES ARE COMMON PLACE WORLDWIDE WITHOUT SIGNIFICANT EFFECT IN THIS REGARD. IT IS NOTED THAT THE PROPOSED BRIDGE PIER SPACINGS ARE IN THE ORDER OF 600 FEET IN ORDER TO AVOID ICE JAMMING. ALSO IT IS SPECULATED THAT THE PIERS THEMSELVES WILL ACT TO BREAK UP THE ICE AS IT MOVES DUE TO CURRENTS AND TIDAL ACTION. THEREFORE WE ARE CONFIDENT THAT THE CRITERIA SET FOR THE PROJECT ADEQUATELY ADDRESSES THIS QUESTION.

SUMMARY

IN SUMMARY, I WISH TO REITERATE THE FOLLOWING POINTS.

1. IMPROVED TRANSPORTATION IS A KEY ELEMENT IF THE POTATO INDUSTRY IS TO CONTINUE TO EXPAND ITS MARKETS NATIONALLY, AND INTERNATIONALLY.

2. PRESENTLY THERE ARE SOME 20,000 LOADS OF POTATOES TRANSPORTATED OFF THE ISLAND BY THE FERRY SERVICE. WE WOULD EXPECT THIS TO CONTINUE TO INCREASE.

3. DURING THE PEAK WINTER MONTHS POTATO TRANSPORTATION ACCOUNTS FOR 40 TO 50 PERCENT OF TOTAL TRUCK TRAFFIC UTILIZING THE FERRIES. IT IS EVIDENT THAT FUTURE INCREASES IN TRAFFIC WILL FURTHER INCREASE COSTS DUE TO DELAYS AND UNCERTAINTY OF DELIVERY.

IN VIEW OF THE ABOVE, THE COMMISSION SUPPORTS THE BUILDING OF A FIXED LINK BETWEEN THE PROVINCES OF PRINCE EDWARD ISLAND AND NEW BRUNSWICK.

CONTINGENT ON THIS SUPPORT, HOWEVER, IS THE NEED TO ENSURE ANY NEGATIVE ENVIRONMENTAL IMPACTS ARE MINIMIZED, THAT PROPER COMPENSATION IS PROVIDED TO FISHERMEN FOR LOST REVENUE DURING CONSTRUCTION, AND THAT FERRY WORKERS ARE PROVIDED A FAIR COMPENSATION PACKAGE OR ALTERNATIVE EMPLOYMENT OPPORTUNITIES. IT IS ALSO A RECOMMENDATION OF THE POTATO MARKETING COMMISSION THAT A SINCERE EFFORT BE MADE TO LOOK FOR A NEW ECONOMIC DEVELOPMENT PACKAGE FOR THE TOWN OF BORDEN. INCLUDED COULD BE THE FEASIBILITY OF A PORT TO ALLOW EXPORTERS TO ATTRACT THE BEST SHIPS AVAILABLE AND LOAD THEM OVER A LONGER SHIPPING SEASON THAN PRESENTLY POSSIBLE.

THE POTATO INDUSTRY IS KEY TO THE ECONOMIC CLIMATE OF THIS PROVINCE, AND TRANSPORTATION IS A KEY ELEMENT IN KEEPING US IN COMPETITION. WE ACKNOWLEDGE THE NEED FOR A FIXED LINK WHICH WILL ENABLE OUR INDUSTRY TO MAINTAIN ITS PRESENT MARKETS AND TO RESPOND TO FUTURE MARKET OPPORTUNITIES IN CANADA AND THE U.S.

PRESENTATION
TO THE
ENVIRONMENTAL ASSESSMENT PANEL
REVIEWING THE
NORTHUMBERLAND STRAIT CROSSING PROJECT

BY THE

PEI POTATO PRODUCERS ASSOCIATION

Peter Van Nieuwenhuyzen
President

March 30, 1990

INTRODUCTION:

Thank you very much Mr. Chairman. It is my pleasure, and duty, as the President of the PEI Potato Producers Association,to make this Presentation to your Panel today.

I would first like to say a few words about our Association, and the potato industry on Prince Edward Island. There are six hundred and fifty (650) producers represented by our organization. The average potato producer provides employment for ten (10) people, and therefore we feel that our Association can speak directly on behalf of the interests of six thousand five hundred (6,500), people across PEI.

BACKGROUND:

In addition to the direct employment already mentioned, we also feel that our industry provides spin-off benefits in the way of employment through machinery sales, repairs, trucking, fuel, chemicals, fertilizers, and so on, for another six thousand five hundred (6,500) people. The total employment contribution from the potato industry can therefore be considered to be thirteen thousand (13,000).

Our industry also provides a major contribution to farm income on Prince Edward Island. In terms of "Farm Cash Receipts", the potato industry accounted for one hundred and twenty-five (125) million dollars in 1989. This was one-half of the total receipts for the whole agricultural industry. Potatoes, even in years of low prices to the producers, have consistently provided for over 30% of total farm cash receipts.

We would also like to remind all interested in this issue, that agriculture is the biggest industry on Prince Edward Island. Our small population base in the Province, of under 130,000 people, cannot begin to consume the amount of food we can produce. As a result, we must export most of our agricultural commodities. It is therefore necessary to move these commodities from the "Island" across Northumberland Strait to the mainland.

PROBLEM:

Our Association feels strongly that our potato industry is being hurt by being dependent on the ferry system. Our domestic markets in Canada must be serviced by trucks, and they must use the ferries. Until now,there has been no other alternative.

In order to serve our North American markets, we are currently loading approximately 20,000 trucks per year. In the future, we expect that the new processing operations of McCain Foods, and Cavendish Farms will create a demand for another 5,000 to 7,000 truckloads per year. Producers continually complain that even now, before this expansion, there are not enough trucks available, and that they come too slowly.

The major reason for this shortage of trucks is the ferry. Potatoes are considered as a back-haul for trucks coming to the Maritimes with other goods from New England, Quebec, and Ontario. Since truckers can often make a choice in relation to what they will back-haul, they often avoid PEI potatoes since they lose time and money waiting for the ferries both coming to, and departing from, P.E.I.

Potato producers know that a transport truck loses about four hours,on each round-trip because of the ferry. We estimate the cost of this lost time to be in the vicinity of $50.00 per hour, or $200.00 in total. This would include wages for the driver, extra fuel consumed, truck overhead, and lost opportunity.

We believe that this problem will continue to deteriorate without a fixed crossing. Each year, we witness an increase in truck traffic at the ferry, and additional waiting time. This will increase our costs and make us less competitive in comparison with other producing areas. For example, New Brunswick,or Maine producers do not face the same problem in servicing Upper Canadian or Boston States markets. As we become less efficient in this area, we face the real possibility of a decline in sales. This means less acreage, less income and less employment.We certainly do not need any of these things in our Province which already suffers from the highest unemployment rates in Canada.

TRANSPORTATION AND COMMUNICATIONS:

It is our view that P.E.I. once enjoyed transportation and communication systems that were as good as anywhere in the modern world. Before the development of good roads, and highway systems, we moved goods efficiently to markets in Europe, New England, and in South America by water from many harbours around the Island. We were as efficient as our competitors.

With the coming of Confederation, and the development of the railway, and later the Trans Canada highway system , new land-based markets developed in areas such as Metropolitan Toronto and Montreal. Because of being an Island, we have always had a disadvantage in servicing these markets when compared to other North American potato producers. They do not have the extra costs and loss of time associated with the ferry when moving their potatoes into the marketplace, compared to ourselves.

In other areas we have enjoyed the advantages of technological changes. For example, we can use "long distance" to telephone brokers in Toronto or Boston. Or, we can use a "FAX" machine to receive an order. We can send samples of product by air to markets during the same business day. We receive courier mail coming by air the same day. We use modems on our computers to watch prices in U.S., Canadian, and European markets from our offices. Our satellite systems allow us to be up to date in the world of business and current affairs. Yet, when it comes to moving our potatoes to the marketplace, we have not kept pace with the technology available today.

We are aware that bridges and tunnels have been built around the world to connect Islands to other mainland areas. The Chesapeake Bay Bridge-Tunnel, in Virginia, is 17.65 miles long and was built over twenty years ago. The Orland Bridge, built in an area with ice conditions in Sweden, connects an Island with 25,000 residents to the mainland. These are but two, of many bridges which have enabled their residents to enjoy the advantages of fast, efficient, transportation systems. With this technology available, we feel that we should grasp the opportunity to make P.E.I. potatoes more competitive with our competition.

We would like to note that the World Book Encyclopedia defines a Bridge as "... a structure used by people and vehicles to cross areas that are obstacles to travel", and that "...without bridges, people would need boats to cross waterways." Their definition seems to imply that people would be foolish to use a boat to cross a waterway when a bridge is available as an alternative.

While you are thinking about that, we would like to note that Prince Edward Islanders have always opted for a fixed crossing over a ferry in the past when the option was available. For example, ferries which operated in places like North River, outside of Charlottetown, on the Trans Canada Highway were replaced by "fixed links". We do not think that anyone would want to put the ferry back in service at North River. Similarly, we believe that once the fixed link is built, few would ever be satisfied to return to ferry service.

ENVIRONMENTAL AND SOCIAL IMPACT:

Our Association agrees that every reasonable measure should be taken to minimize environmental risk. We would urge that strict standards be established and used to guide construction. We would also support the following measures:

- compensation measures for fishermen who may be impacted during and after construction
- compensation for ferry workers who might lose employment when the Link is completed
- special consideration for the Town of Borden if it suffers any losses after construction is completed

CONCLUSION:

The potato industry on P.E.I. is strongly in favour of the "Fixed Link". At the same time, we fully support the Panel's examination of environmental issues to ensure that potential problems and negative impacts are minimized.

On behalf of our 650 producers, I thank you.

BRIEF TO THE ENVIRONMENTAL ASSESSMENT PANEL REVIEWING THE NORTHUMBERLAND STRAIT CROSSING PROJECT

SUBMITTED BY: DR. DONALD A. STEWART
ON BEHALF OF
FRIENDS OF THE ISLAND
MARCH 30, 1990

The Encircling Sea

"Since I'm Island-born," wrote Island poet Milton Acorn, "nowhere...is there a spot not measured by hands;/ no direction I couldn't walk/ to the wave-lined edge of home."

We Prince Edward Islanders feel very much at home on our island. We know it, as the saying goes, like the backs of our hands. We know the rolling hills, the chequered farmscape, the tidy fishing ports.

No one has written with more feeling about the particular charm of Prince Edward Island than Lucy Maud Montgomery. "Much of the beauty of the Island is due to the vivid colour contrasts," she states, "the rich red of the winding roads, the brilliant emerald of the uplands and meadows, the glowing sapphire of the encircling sea."

For Montgomery, the Island is defined above all else by the sea. "It is the sea," she writes, "which makes Prince Edward Island in more senses than the geographical. You cannot get away from the sea... Save for a few places in the interior, it is ever visible somewhere, if only in a tiny blue gap between distant hills, or a turquoise gleam through the dark boughs of spruce fringing an estuary. Great is our love for it; its tang gets into our blood..."

Montgomery is right: we cannot get away from it. All attempts to describe the special character of Prince Edward Island must arrive at length at the shore - the "wave-lined edge of home" overlooking "the encircling sea."

For Prince Edward Islanders there is something deeply satisfying in the fact that we live on an island, a geographically perfect entity.

Crossing the Strait

Life on an island, however, is not without its drawbacks. Content as one may be with living at home, there is often that urge to visit the neighbours. Travelling to the Mainland has often presented a problem.

In the pioneer period, the water encircling the Island acted more as a highway than a barrier to communication. From dozens of small Island ports, locally-built ships sailed to all parts of the world. Summer traffic across the Northumberland Strait went by means of sailboat. The first permanent steamship connection was established in 1842.

The real problem arose in winter, when for close to half the year the Island was encircled by a barrier of close-packed ice. Local ingenuity responded with the development of a specially-designed wooden craft called the ice-boat. These ice-boats were about 20 feet long and came equipped with runners and sails. With both crew and passengers pitching in, they were alternately rowed through water or dragged over the ice. By this means the winter mail travelled between Cape Traverse and Cape Tormentine for the better part of 100 years.

Improvement came gradually after Confederation in 1873, when the Island was promised "efficient and continuous" steamship communication with the Mainland. The first ferries provided by the Federal Government - the Albert, the Northern Light, the Stanley, the Minto - were not efficient ice-breakers. In 1890 the Stanley was unable to make the crossing for 43 days in a row. At such times the ice-boats were pressed back into service.

The era of the ice-boat did not end until the modern port of Borden was built after World War 1. In 1918 the Prince Edward Island went into service - the first ferry capable of carrying automobiles and passenger cars.

The years since 1918 have witnessed a substantial and continuing improvement in ferry communication between Prince Edward Island and the Mainland. A second crossing has been established connecting Wood Islands and Caribou, Nova Scotia. The ships have been getting bigger and faster, and ice delays are no longer a problem. The time necessary to make a crossing continues to grow less and less.

With present-day advances in modern vessel technology, carferry communication grows increasingly more efficient. There is every reason to expect this process to continue indefinitely into the future.

Pushing the Link

The idea of a permanent crossing between Prince Edward Island and the Mainland first became a public issue in the 1880s. Underwater tunnels were then being built elsewhere in the world, and the first ferries provided by the Federal Government after Confederation were proving ineffective in ice. The early concept took two forms - that of a tunnel or a subway, the latter being a huge tube lying on the floor of the Strait.

In the last two decades of the 19th century the tunnel became a perennial election issue. It was promised by such notable Canadian political leaders as Macdonald, Laurier, and Borden - invariably, however, accompanied by the revealing rider, "if it proves feasible." Although the Island public seemed to find such grandiose schemes titillating, the tunnel always dropped from the consciousness of national politicians once elections were over. With the establishment of an efficient carferry service at Borden in 1918, it dropped from the consciousness of the Island people as well.

The idea of a permanent crossing was revived in the 1950s, this time in the form of a fixed causeway with a bridge opening in the middle. In the mid-'60s the Federal Government gave its support and construction actually began. An amount of 15-million dollars was spent building approach roads. The estimate of construction costs continued to mount, however, and the Federal Government of Pierre Trudeau decided to abandon the project.

We Islanders must remain forever grateful that Prime Minister Trudeau had the courage to call a halt - albeit for the wrong reasons. In the fragile setting of the Northumberland Strait, a fixed causeway would have resulted in an environmental disaster of enormous proportions. No thinking person of today would push for a causeway as a viable option. Thus do perceptions change with time.

During the 1970s the Federal Government undertook an ambitious program of ferry service improvement and the fixed crossing issue dropped from the public mind. There it would almost certainly have remained had it not been revived a few years ago by a coalition of interests made up of federal politicians intent on privitization and large construction companies looking for work.

These twin forces have continued to push for a fixed crossing up to the present time. The whole process has been highly politicized, to the detriment of the public interest. One of the principal promoters of the project, Tom McMillan, was in an obvious position of conflict as Federal Minister of the Environment. Although the case for initiating a full environmental review process was manifest from the outset, the Federal Government refused to do so until after Mr. McMillan's defeat in the last election. In the meantime, one of the more attractive options, a rail tunnel, had been excluded from the process, apparently for political reasons.

This brings us to the present moment. The EARP Panel is stuck with a bridge - three of them, in fact, although neither the Panel nor the public is allowed to examine the plans or specifications for any. And the federal Department of Public Works continues to rebuff the efforts of the Panel to reintroduce the tunnel as an option.

Opposing the Link

Opposition to the construction of a fixed link is a relatively recent phenomenon. In the 19th century, a tunnel extension to the

Canadian railroad system seemed to make good sense, fantastic as the project must have appeared to the average Islander. Even as late as the 1960s, few voices were raised in opposition to the construction of a causeway. If a group of people had stood up then to declare that such a major intervention in the delicate ecological system of the Strait might bring disaster, they would have been soundly denounced as nay-sayers and opponents of progress.

Public opinion against constructing a fixed link has increased dramatically in the past two decades. It now seems quite likely that a clear majority of Islanders oppose the construction of a bridge.

There are two major reasons for this change in attitude. Beginning in the 1960s, Prince Edward Islanders, like people elsewhere living on the fringes of the industrialized world, became fearful of the rapidity of change. Tradition was under seige. The result was a powerful heritage movement; and many people came to see the Northumberland Strait as more of a protection than a barrier. More recently, the environmental movement has added its rapidly increasing weight to the side of those opposing a link.

While the foregoing may be an adequate explanation in general terms for a dramatic change in public opinion, individual reasons are much more diverse. Many people are simply opposed to anything which would diminish the status of Prince Edward Island as an island. For them it is a matter of the spirit, and no compromise or mitigation is possible. The construction of a fixed link would represent a psychic violation.

Others oppose the fixed link for aesthetic reasons associated with the beautiful Island landscape, to them a national treasure. With a bridge, they foresee many more summer visitors and a further proliferation of ugly tourist strips and coastal cottage developments. No reassurance contained in the studies commissioned by the Department of Public Works will shake them from their common sense certainty that this is likely to happen.

Still others are coming to the realization that, in terms of public policy, the Island is simply not ready for the major changes a fixed link would bring. Most obviously, our highway system is not ready. Perhaps more importantly, our land use policy is not ready. These people would argue that no decision to build a fixed link should be made until a comprehensive land use plan is established - one comparable in thoroughness to that in place before the much-touted Oland bridge was built in Sweden.

Finally (and for some, surprisingly) a growing number of Islanders are beginning to question the link on economic grounds. The arguments used here are similar to those employed in the recent Free Trade debate. When two entities of greatly unequal economic weight are tied more closely together, whether by Free Trade agreement or fixed link, it is the smaller and weaker which is likely to suffer. Thus the fixed link becomes not a highway to the Island but the road to Moncton. In the words of former Island Premier Hon. Angus MacLean, "If a link to the mainland was all it took to make P.E.I. prosperous, Cape Tormentine would be booming now."

Three Reasons for Saying No

Ladies and gentlemen of the Panel, we believe there to be at least three very good reasons why you should say no to the proposal to build a bridge across the Northumberland Strait. Each may in itself be sufficient justification to stop the project. The three reasons are outlined below.

First, we maintain that the environmental review process, of which you are part, is fundamentally flawed. This has been expressed quite succinctly by Mr. Jim Feltham, current Project Director for Public Works Canada, in a recent article in The Financial Post. After stating that the decision to go with a bridge was "almost irrevocable," Mr. Feltham added: "You're supposed to have the EARP before a project is irrevocable."

In our opinion, this places your Panel in an untenable situation. You are restricted to a simple "yes" or "no" reply to a generic bridge, albeit with the option to add mitigating factors. You have thus been denied the creative role of examining all the options impartially, and pointing out which would best serve the transportation, financial, social, and environmental priorities of Islanders.

By saying no to the bridge concept, you will provide Islanders the opportunity to do this at a future date. Then a thoroughly revitalized modern ferry service could be added to the mix. We could consider the heady possibilities of a summer hydrofoil service to the Mainland at West Point and Souris. The service at Borden could be much improved, with computerized booking in place for transport trucks. And it would be a simple matter to equip the terminal on both sides with small theatres featuring local talent and information, so that the occasional wait for a ferry would be a matter more of anticipation than dread.

The second reason for saying no to the bridge is the deeply divided state of public opinion on the Island. As expressed earlier in this brief, there is a good likelihood that a clear majority of Islanders now oppose the project.

We all know, of course, that 59+ per cent of Islanders voted yes in the provincial plebiscite of two years ago. In our opinion, however, those promoting the fixed link succeeded in convincing a significant percentage of the public that a yes vote simply meant yes to more studies. This view was promoted in newspaper ads and by the statements of federal politicians and senior Public Works officials. In the Charlottetown Guardian of January 16, 1988, for example, Tom McMillan was quoted as saying that "a 'yes' vote in Monday's fixed link crossing plebiscite would mean the need for further study on a particular project chosen by the federal and provincial governments." Even the Island fishermen, fierce opponents of a bridge, were lulled into inactivity.

Furthermore, there is every indication that public opinion continues to shift against the idea of the fixed link, particularly a bridge. An Island-wide poll taken during the last federal election campaign indicated that 56.9 per cent of 1217 people questioned expressed a preference for "an improved ferry service over a bridge." And a Decima poll taken on the Borden-Cape Tormentine ferries last summer showed that a majority of the residents of all three Maritime provinces preferred an expanded ferry service to a fixed link.

Both because the plebiscite vote was inconclusive and Island opinion continues to shift, we maintain with conviction that no public mandate exists to proceed with the construction of a bridge.

Third, and finally, we maintain that no bridge should be built against the opposition either of Island fishermen or the scientists of the Gulf Region of the federal Department of Fisheries and Oceans. At the present time both oppose the project.

There exists among Island fishermen a strong feeling that they were misled by the federal Department of Public Works during the plebiscite campaign. Certainly they were given to understand that a tunnel was a real possibility. Also, they were told on several occasions by then Project Director Glen Duncan that no bridge would be built unless "we were 100 per cent sure there would be no damage to the fishery." (Cited from Journal-Pioneer, January 7, 1988.)[1]

The scientists at Fisheries and Oceans continue to maintain that there exists a real risk that a bridge will damage the fishery. In the rather convoluted language of a submission to your Panel earlier this year, the Regional Director General of DFO stated: "DFO has concerns whether science is capable of providing impact predictions with sufficient confidence that unacceptable effects can be excluded." In plain English, this means there is something less - possibly significantly less - than 100 per cent certainty.

---

[1]. For other comments from the same meeting, see Appendix A, a transcript of a taped exchange between Mr. Duncan and some Prince County fishermen at a public meeting in Summerside, January 6, 1988.

Conclusion

Ladies and gentlemen of the Panel, we stand at an historic time in world events. While outdated ideologies crumble in eastern Europe, elsewhere in the world consensus is rapidly emerging that all peoples must unite to save our global environment. We in Prince Edward Island are in the main current of this movement. This is one reason why public opinion is flowing so strongly against the proposed Northumberland Strait bridge.

In this age of environmental sensitivity, we maintain it to be unacceptable to take a conscious risk with the Northumberland Strait ecosystem. To proceed with the construction of a bridge would be doing just that. In the words of eminent Canadian environmentalist David Suzuki (interviewed by Holly Bridges, CBC-FM, January 5, 1988)[2] building a bridge means "putting that system at risk, and no amount of reassurance by your so-called experts carries any weight in terms of ecology or science."

Ladies and gentlemen of the Panel, 20 years ago the Federal Government almost proceeded with the construction of a causeway across the Northumberland Strait. Today, with the wisdom of hindsight, we are grateful that Prime Minister Trudeau decided to say no to the project.

We hope, as your legacy, that Islanders will be saying the same about your decision 20 years hence.

Thank you.

---

[2]. See Appendix B.

Appendix A

Transcript

Meeting attended by over 70 fishermen, Linkletter Convention Centre, Summerside, P.E.I., Wednesday, January 6, 1988

Fisherman #1:

I don't think we should take a chance to ruin our fisheries. It's real good, pretty good now.

Fisherman #2:

The fact that there is any question whatever of the bridge causing environmental damage or damage to the fishery...it should be forever set aside, and if the tunnel is not the thing that we need, then we'll go without either.

Fisherman #3:

I think most of us here could say tonight a bridge is going to affect our environment too, so why don't they just throw that bridge right out and either have it a tunnel or nothing.

Fisherman #4:

Do you still stand behind what you said last spring at a meeting in Holland College that if the fishermen don't want this bridge-type crossing, we will not put it up?

Glen Duncan, Project Director, Public Works Canada:

I would think that it would be extremely difficult, if not impossible, for a project to proceed.

"They're either stupid or they're liars"

Suzuki condemns 'experts'

The following is a transcript of an interview by Holly Bridges with Dr. David Suzuki which was broadcast on CBC-FM on Jan. 5, 1988. David Suzuki is a geneticist, environmentalist, and author who hosts the CBC television series, The Nature of Things.

Holly Bridges: If a fixed link wasn't the cause of your resignation as honorary chairman of the P.E.I. Tourist Association's "Touch Nature" campaign, why did you bring it up in your letter of resignation?

David Suzuki: It was an addendum at the end. Building the fixed link to me was the ultimate expression of the utilization and destruction of nature. Because I don't believe for a minute that any of the environmental assessments can even begin to assess the long-term impact of that development.

H.B.: Why do you say that? We have been assured by some experts that there will be no damage to the environment.

Suzuki: Ah...that's absurd. I cannot say that there will be damage, but I can tell you right now you can't make that assessment. I have written extensively about this issue, but again, the problem with assessments is that they are too limited in scope and scale and duration. Look, if you take something as complex as a marine ecosystem, we know virtually nothing about the complexity of marine organisms. I mean, our piddling attempts to try to trap in nets and to try to sample what's down there is absurd. We should be much more aware of how ignorant we are.

When we go in and do a limited environmental study that might last a few months, you know, about the complex ecosystem there that goes through cycles extending over years and years...you know next to nothing! And to think that we can extrapolate from a little tiny study done for a very short period of time, sampling a limited number of organisms in the ocean, to think that we can extrapolate from that and to predict what the consequences of a major development like that bridge will be is the height of conceit, and I would say that the people who submit those reports and say, "We know what's going to happen," are either incredibly stupid or they're liars, because they certainly do not understand what the nature of that ecosystem is and what their science tells them.

H.B.: You are certainly speaking out on the side of people who are actively against this fixed link. Are you going to be campaigning for them?

Suzuki: No. All I'm saying is, if people want a fixed link, that's up to the province of Prince Edward Island. But if you're saying that the marine system over which that bridge will go is also important, then you must understand that you cannot at this time predict what is going to happen to that marine ecosystem, and that none of the studies have adequately done that because they are not predictive. They are not useful that way, and I think Prince Edward Islanders ought to understand what the issue is. You are putting that system at risk, and no amount of reassurance by your so-called experts carries any weight in terms of ecology or science. And people ought to know that. If you say, "Okay, it doesn't rea matter, we need that bridge," that' decision for you to make. I, as an vironmentalist, say that's a very sho term view because I think you ha something there very important a you ought to be much more cautio about doing it. But it's up to Prince E ward Islanders.

H.B.: Thank you very much for tak our call, Dr. Suzuki.

David Suzuki hosts the award-winni CBC television series, "The Nature Things." He is a professor of geneti at the University of British Columb and writes a science column for t Toronto Star.

PUBLIC HEARING PRESENTATION
TO
THE ENVIRONMENTAL ASSESSMENT REVIEW PANEL
ON THE FIXED LINK

BY

KATHERINE DEWAR

MARCH 30, 1990

I wish to thank the panel for the opportunity to appear before you tonight. I consider it an honor as a concerned citizen of P.E.I. to abe able to do so.

I am approaching my presentation to the panel in the following ways: Firstly, I have done a literature review of the responses to the December 1989 studies; secondly I will present a tape outlining local wisdom on the ice conditions in the Northumberland Strait; and finally I will intersperse my own opinions and concerns throughout the paper.

I would like to address my comments to the panel by outlining problems and concerns that I have observed in the DPW Studies, and the responses to the December 1989 studies. I realize that this is the last time that Islanders will have a chance to air their views and concerns. For that reason, it is extremely important that the panel recognize the following major problems to date with the fixed-link proposal: (a) the process, (b) the questionable methodology in many cases, and (c) environmental concerns.

Before I address each of these areas I would like to comment on a common theme that I saw throughout the responses to the original and subsequent studies. It is the theme of questionable assumptions, doubt at conclusions reached, and the very expressed need that more sound and conclusive studies need to be done in some cases.

No study can say with certainty that there will not be major ecological problems associated with the project. If there is the least hint that the project will be ecologically deleterious to Prince Edward Island, we must take a sober second look. I am not saying kill the project, but proceed more slowly, carry out more credible studies and assure Islanders and the operative word is **assure** that this project will be environmentally benign. If this panel cannot assure Islanders, and I believe at this point it cannot, then it has no other choice but to slow down the process that at the moment is propelled by political expediency. A political expediency that sees the creation of short term jobs during the construction as a smoke screen to cover the decimation of the Atlantic Canadian economy, brought about by recent federal government initiatives (changes in UIC, free trade, closure of fish plants, and the closure of C.F.B. Summerside).

I will now address the three areas that I have previously delineated.

(1) THE PROCESS

I was recently disturbed when Premier Joe Ghiz returned from a conference with Brian Mulroney over C.F.B. Summerside, and he casually threw in the comment that Prime Minister Mulroney wishes to see the fixed-link begin as early as possible. To me, this comment was totally unacceptable as an environmental review process was still going on. I would question the Prime Minister's respect for the due process that all Islanders are entitled. It has always been known that DPW, was a proponent of the fixed-link and it was questionable that it was carrying out its studies with an objective attitude. This raises the question of bias and questionable reliability of studies they have commissioned. Politically, the federal government sees the fixed-link proposal as an expedient way to abrogate their constitutional responsibility of providing continuous service for Islanders to the mainland. They are relieved of their subsidies and we court the possibility of an ecological disaster.

Another obvious fault of the process is the lack of a clear proposal to study. No proposal can be accepted without a thorough and detailed look at the bridge concept. We have been asked to buy a "pig in a poke".

Furthermore, I do not believe that there was a clear mandate from the plebescite to build a fixed-link. Clearly a yes vote was a vote for further studies. Further studies, which incidentally, clearly demonstrate the need for caution and a sober second look!

Lastly, the process is greatly flawed in that Islanders have not been given the tunnel option. An option that is unquestionably more environmentally sound.

The P.E.I. F.A. has repeatedly come out in opposition to a bridge concept. Indeed, Glen Duncan, assured the fishermen that "a bridge would not be built - unless we were 100% sure that there would be no danger to the fisheries." (Journal Pioneer, Jan. 7, 1988) Cliff Thompson in the Guardian, January 16, 1988, stated that "the Fisherman's Association will make damn sure that it (fixed-link) would be a tunnel". The P.E.I. Fisherman's Association and the D.F.O. in their own presentations of January 1990 stated that the ecological impact on the 100 million dollar fishery of the Northumberland Strait was a major concern. Assurances could not be given that the fishery was not in jeopardy. Indeed, questions were raised that indicated that it might be in jeopardy.

(2) RESEARCH METHODOLOGY

Many authors raise the point of questionable methodology in several of the studies. This questionable methodology raises grave concerns that a mega project might proceed on faulted studies, jeopardizing the environment and fisheries of Prince Edward Island.

In my brief to the Panel in January, I pointed out that I had reviewed the support document for question K - Socio-economic effects within the region and on particular communities. I quote from my brief now. "I understand that this report is formulated from qualitative research, and as such, has no built in checks and balances for validity and reliability. This document, as I see it, can neither predict or generalize, due to the nature of the supporting research. For this reason, any conclusions drawn from the document must be highly suspect."

Robert O'Rourke (January 1990) echoes this view when he says that the Social Impact Assessment "makes some questionable assumptions" and The Tourism Report "has questionable assumptions". He further states that "some reports and studies with respect to social and economic effects are soft and may need supplemental analysis at a later date." There are many more questions regarding the methodology. Byers (Jan. 1990) states, "the methodology has no theoretical basis. it is "wrong" with respect to measurement theory, and the resulting risk scores have no proper meaning." I have sufficient concerns about the methodology used to study project/project interactions. Dadswell (Jan. 1990) points out that "There is an inconsistency between results and statements made about them."

Fisheries and Oceans (1989 - p. 1) in their brief express the view that "the BCA is not scientifically credible." They further caution that the DPW studies have possible spurious correlations. In other words, the results are to be viewed with skepticism. These are but a few of the quotes that I have extrapolated from the Jan. 90, brief presentations. With such major concerns expressed about the methodology of the D.P.W. studies, surely the study results cannot be used as a basis to proceed with this bridge concept.

(3) ENVIRONMENTAL CONCERNS

(A) GROUNDWATER STUDIES

The groundwater study done only in the area of Borden does not lend itself to generalizing for the whole island. For instance, the increase in tourists is not likely to be in the Borden area. Therefore, the results are possibly fallacious. Islanders have experienced major contamination of their groundwater sources within the last year. We are dependent upon our total water supply from groundwater, and we must not jeopardize this groundwater by not having accurate studies done if the bridge is to be built. Our groundwater is a major environmental concern.

(B) RISK BENEFIT DIAGRAMS

Kierns (Jan. 1990) indicates that lack of preparation of a risk benefit diagram is not acceptable for the B.C.D. He further states that the rejection of a rail tunnel option and acceptance of a very long bridge means exposure to high safety risks, cost, environmental harm, and weather delays.

(C) LAND SPECULATION

The issue of land speculators or land taken out of agricultural production has not been adequately addressed by the Smith Green Report (Dec. 89). The assumption that land speculation will not be a problem - does not seem to be grounded in any objective study. Will islanders potentially lose the land of their birth and opportunities to the greed of land speculators?

(D) SPILL IMPACT

The impact of spills on the strait fisheries does not seem to be adequately addressed. According to Byer (90) "statements about probabilities are wrong and misleading" (p. 3). He further claims "that conclusions do not follow from the study, and D.P.W. studies appear to have made a number of errors in arriving at their conclusions. One or more accidents with significant environmental consequences could occur during the life of the fixed-link."

(E) FISHERIES

The DFO, the recognized experts on fisheries research, have great reservations about the studies done by D.P.W. PEIFA (1990) suggest the D.P.W. has no mandate or expertise in environmental science. PEIFA further believes that DFO have the scientific competence to evaluate the effect of a fixed-link on the Northumberland Strait fisheries. They also state that the building of a fixed-link would be an environmental and economic folly.

The DFO brief of (Jan. 90) raises serious questions about the methodology used to study the impact of the fisheries by the fixed-link. They point out the following: The environmental management plan is inadequate, the compensation plan is not spelled out, there are actual errors in Ice/Climate/Fishery interaction document, and they view model predictions as speculative possibilities, rather than a firm forecast of actual consequences. DFO (90) also find that the effect of global warning has not been adequately addressed. A further note of caution has been expressed by (Rice et. al.) when they state, "impacts of proposed bridges are impossible to evaluate at this time."

(F) ICE

Scientists as well as local wisdom are appealing for a serious second look at the data compiled on Ice studies. Dadswell (1990) noted several problems with the DPW studies. I will not review those problems at the present time, as I'm sure they will be addressed by others more knowledgeable than I. However, I would like to share with you some local wisdom on the Northumberland Strait ice. Some of the local old timers view with some incredulity, the glib approach taken by the DPW scientists when viewing the forces of ice on the bridge piers. It has also been noted that the worst possible scenario for ice leaving the strait could be extended buy two weeks, causing a cooling of the local climate and a possible delay in spring planting. The delay in ice movement will also impact on the fisheries. Islanders will have to ask themselves if they want to run those risks. Do we want to jeopardize our farming and fishing industries?

(PLAY TAPE)

CONCLUSION

In conclusion, I would like to point out that the decision to build a fixed-link is probably the most important decision to face Islanders since our decision to enter Confederation. Historically, the fixed-link has been debated and studied for a hundred years. We do know that if the causeway had been built in the sixties, it would have been a major environmental disaster. Although scientists and engineers at the time thought it was a perfectly feasible option. What is even more scary today is that scientists now have doubts whether this proposed bridge concept or today is an environmentally safe option.

The very fact that environmental alarm bells are ringing should be enough for us to say NO to the concept of a bridge and re-institute the study of a tunnel option. I think at this point the Environmental Assessment Review Panel has no choice but to say that the bridge concept design is not feasible at this time.

All evidence suggests that environmentally, the tunnel is a much safer option.

My other major concern is that I believe Islanders have been mislead by the total process and these final public hearings are the last hope for a redress of the faulted process. For example, two polls (Decima 1989, MacDonald Nov, 1988) both indicated that Islanders 52% and 59% respectively wished for improved ferry service over the option of a fixed-link. The travesty of this total process is that Islanders were never given the option of stating that they wished improved ferry service. Now, another option, that of a tunnel, has been removed and we are left no choice but accept or reject a bridge. Unfortunately, I believe that choice is a non-option - we cannot accept an option that is selfishly, politically motivated, and most likely detrimental environmentally and socio-culturally to Prince Edward Island.

As concerned, environmentally conscious Islanders, we must say NO to this bridge concept design.

Finally, I would like to end my presentation with a poem by Lucy Maude Montgomery which, to me, epitomizes P.E.I. and why I choose to live here.

QUOTE POEM

I hope when this review process is over that we will have said NO to a bridge design, and that Lucy Maude's historic home is still safe and serene, and we will not have to rewrite the pages of history to account for a changed and less pristine Prince Edward Island.

UBC - PEI

Since 1953

United Brotherhood of Carpenters
Local 1338

it

22 Enman Cres.
Charlottetown
P.E.I. C1E 1E8

and

Telephone: (902) 566-1414
Facsimile: (902) 566-2027

PRESENTATION

TO

THE ENVIRONMENTAL AND ASSESSMENT REVIEW PANEL

BY

UNITED BROTHERHOOD OF CARPENTERS AND JOINERS OF AMERICA, LOCAL 1338

MARCH 30, 1990

Workers helping workers to better their lives

MR CHAIRMAN AND MEMBERS OF THE PANEL:

THE UNITED BROTHERHOOD OF CARPENTERS,LOCAL 1338 WOULD LIKE TO THANK YOU FOR THE OPPORTUNITY TO APPEAR BEFORE YOU ON THIS DATE. YOUR SCHEDULE HAS BEEN A LONG ONE AND WE CONGRATULATE YOU ON YOUR ENDURANCE IN SEEKING OUT THE BEST ANSWERS CONCERNING THE PROPOSED FIXED LINK PROJECT.

BEING A CHARTERED LOCAL OF THE INTERNATIONAL UNITED BROTHERHOOD OF CARPENTERS AND JOINERS OF AMERICA, AND REPRESENTING WORKERS IN THE MANUFACTURING AND CONSTRUCTION INDUSTRY ON P E I ,WE APPEAR BEFORE YOU ON THIS DATE TO CONFIRM OUR SUPPORT FOR THE PROPOSED PROJECT AS IT COMES CLOSER TO BECOMING A REALITY.

FROM PREVIOUS PRESENTATIONS AND COMMENTS BY OURSELVES,NATURALLY YOU ARE AWARE THAT OUR SUPPORT IS CONDITIONAL ON THE PROJECT BEING ENVIRONMENTALLY SOUND.

WE ALSO WISH TO CONFIRM OUR SUPPORT OF THE PROCESS THAT HAS TAKEN PLACE TO DATE. IT APPEARS TO US THAT YOUR EFFORTS TO ANALYSE ALL POTENTIAL PROBLEMS HAVE BEEN HELPFUL IN LENDING CREDIBILITY TO THE PROCESS AND IN ELIMINATING A LARGE NUMBER OF DOUBTS THAT THE GENERAL POPULATION MAY HAVE HAD. YOUR WORK IN THIS AREA IS TO BE APPLAUDED.

WE BELIEVE THAT THE FIXED LINK WILL BE A POSITIVE DEVELOPMENT FOR ALL OF P E I . WE ARE AWARE OF THE FACT THAT THERE WILL BE A DISPLACEMENT OF SOME C N MARINE WORKERS. ALTHOUGH THIS IS NOT A PLEASANT SITUATION,ONE MUST REALIZE THAT, EVEN ON P E I, CHANGE EVOLVES ON A CONSTANT BASIS. CHANGE DEMANDS THAT SOME PEOPLE HAVE TO ADAPT- INFREQUENTLY, BEFORE THEY ARE PREPARED TO DO SO. IT IS OUR UNDERSTANDING THAT A FAIR TERMINATION PACKAGE BEING PRESENTED TO ALL C N MARINE EMPLOYEES IS ONE OF THE MANY FACTORS THAT THE SUCCESSFUL CONTRACTOR MUST MAKE PROVISIONS FOR BEFORE THE PROJECT IS GIVEN THE "GREEN LIGHT". THIS WE ENCOURAGE AND SUPPORT FULLY. WE ARE NOT PROMOTING THE IDEA OF PEOPLE LOSING THEIR LIVLIHOOD.

WE HAVE REVIEWED MUCH OF THE DOCUMENTATION THAT HAS BEEN GENERATED BY THE VARIOUS PARTIES CONCERNED WITH THE FIXED LINK PROJECT. WE DO NOT APPEAR BEFORE YOU NOW TO RAISE NEW ISSUES OR TO DEBATE THE OLD ISSUES. WE HAVE CHOSEN TO LEAVE THE TECHNICAL ASPECTS TO THE APPROPRIATE EXPERTS AND WE ARE CONFIDENT THAT WHEN ALL IS SAID AND DONE,THE PROJECT WILL PROCEED TO THE CONSTRUCTION STAGE.

OUR INTEREST IN THIS PROJECT IS REALLY QUITE OBVIOUS-"JOBS". AT PRESENT,WE ARE ACCUSTOMED TO OUR WORKFORCE RUNNING AT 35-65% UNEMPLOYED AT ANY GIVEN TIME IN ANY GIVEN YEAR.THE COMMENCEMENT OF A PROJECT OF THIS NATURE WOULD ELIMINATE UNEMPLOYMENT PROBLEMS FOR OUR LOCAL UNION AS WELL AS THAT OF MANY OTHER P E I TRADES PEOPLE. WE ARE ASSURED THAT P E I TRADES PEOPLE WOULD BE INVOLVED TO A GREAT EXTENT SINCE ANOTHER OF THE QUALIFYING CONDITIONS THAT THE SUCCESSFUL CONTRACTOR MUST MEET IS THE ONE OF LOCAL CONTENT FOR "SERVICES AND LABOUR".

OUR INVOLVEMENT,TO THIS POINT IN TIME,HAS BEEN TO ENSURE THAT THE WAGES,HOURS OF WORK AND WORKING CONDITIONS CONCERNING OUR FELLOW PRINCE EDWARD ISLANDER'S ON THIS PROJECT ARE OF AN "ACCEPTABLE 1990'S STANDARD". DISCUSSIONS WITH THE POTENTIAL CONTRACTORS,PROVINCIAL GOVERNMENTS AND OUR COUNTER PARTS IN THE OTHER PROVINCES LEAD US TO BELIEVE THAT LABOUR RELATIONS WILL NOT BE THE PROBLEM THAT SOMETIME OCCURS ON PJOJECTS OF THIS MAGNITUDE.

THE UNITED BROTHERHOOD OF CARPENTERS HAVE BEEN INVOLVED IN MANY LARGE PROJECTS ACCROSS NORTH AMERICA. THE EXPERIANCE AND EXPERTISE OF THE BROTHERHOOD IS AVAILABLE TO OUR LOCAL AND TO OUR NEW BRUNSWICK AND NOVA SCOTIA COLLEGUES UPON REQUEST, BY A SIMPLE PHONE CALL. WE ARE AN AFFILLIATE OF THE NEW BRUNSWICK-PRINCE EDWARD ISLAND NORTHUMBERLAND STRAIT FIXED LINK ALLIED COUNCIL WHICH WAS FORMED FOR THE PURPOSE OF ENSURING THAT A LABOUR RELATIONS MECHANISM WAS IN PLACE TO DEAL WITH ALL ASPECTS OF LABOUR RELATIONS CONCERNING THE PROJECT.

MR CHAIRMAN AND PANEL MEMBERS,YOU ALREADY HAVE BEFORE YOU ALL THE POSITIVE EFFECTS THAT WILL BE CREATED BY THE CONSTRUCTION OF THE FIXED LINK. WE SEE NO NEED TO REPEAT THEM. WE KNOW THAT THE NEGATIVE CONCERNS SHALL BE DEALT WITH IN THE FAIREST MANNER POSSIBLE.

THEREFORE, BEFORE CLOSING, WE MUST REPEAT THAT WE SUPPORT THE REVIEW PROCESS THAT HAS TAKEN PLACE AND WE DO SUPPORT THE CONSTRUCTION OF THE FIXED LINK. WE WISH TO ADVISE YOU THAT WE BELIEVE THAT THE FIXED LINK PROJECT SHOULD PROCEED TO CONSTRUCTION AS SOON AS POSSIBLE.

OUR BEST WISHES GO OUT TO YOU DURING YOUR FUTURE DELIBERATIONS,AS WE AWAIT THE WINDING DOWN OF YOUR REVIEW PROCESS. WE ARE LOOKING FORWARD TO THE DAY WHEN OUR MEMBERS ARE INVOLVED IN THE ACTUAL CONSTRUCTION OF THE FIXED LINK.

THANK YOU.

ARP PANEL
IEARINGS ON
XED LINK
CHEDULED FOR
MARCH 30/90

Mr Chairman, members of the Panel:

According to the booklet put out by the government of Canada entitled *The Federal Environmental Assessment and Review Process*, "the role of the Panel is to review the data -- to look at the environmental and related implications of the project in question -- and then to report to the Minister of the Environment."

The publication goes on to declare: "The Panels terms of reference are broad -- its report will contain whatever information the Panel considers essential to the decision-making process"

I take issue with the declarations of Mr. Morrisey who stated, on behalf of the provincial government that the panel is not mandated to to consider socio-economic, employment and transportation impacts - that these are issues that should be considered separately and solely by the provincial government. I feel that a careful reading of the gov't publication on the Review process would give the provincial government a better understanding of just why the Panel must look at these issues.

The whole reasoning behind the the Environmental assessment and Review Process is based on the premise that a non-aligned board can access information from everywhere, including provincial experts. This large body of knowledge would increase the chances that the right, long-term approach will be taken to the development of major projects.

Personally, I cannot see how the Panel could do its job if it were restricted in terms of what it can or cannot look at.

In fact, in terms of this Environmental Review Panel and its study of the Fixed Link Proposal, I feel that in some respects, its mandate has been tampered with.

I refer to the fact that Public Works has neglected to provide information requested by the Panel. In particular, Public Works was asked specifically to indicate which coastal communities besides Borden might be adversely affected by the fixed crossing. This information would be helpful in assessing groundwater conditions, land use, impact on fishery and agriculture, and issues surrounding the provision of essential services.

Public Works did not supply this essential data. Instead the department informed the Panel that this information was "addressed at the proposal stage". and that the developers themselves will "propose comprehensive Environmental Plans [which] will identify all construction, operation and related activities, which would impact on the biophysical and socio-economic environment."

Public Works went on to assure the Panel that this Environmental "Management Plan," "though prepared and implemented by the Developer, must be satisfactory to PWC, the provincial regulatory agencies and other federal departments and must conform to all relevant federal and provincial regulatory legislation."

So, although developers were required in their proposals, "to propose the location and characteristics of work sites, construction camps and other infrastructure," the Panel is not being given access to this information. The review process then, has no way of assessing these locations or of making recommendations.

In fact, the Panel is not even being allowed to see the plans for the bridge or related information. Although the Panel has accepted this last restriction because Public Works argues that it would violate the confidentiality of the companies involved, I consider this regretable. It would seem to me that it would be very informative for the Panel to be able to see the plans, especially since one of its members is an acknowledged expert on bridge analysis. I am sure that an arrangement could be made to guard the rights of the developers.

In effect, the sum total of all information concerning bridge design, work camps, construction facilities and associated infra-structures is being excluded from the review Process.

The Panel also informed the Dept

of Public Works that it did not fully accept the rationale behind the rejection of the tunnel option. They asked for "an easily comprehensible risk-benefit diagram for the bridge and tunnel."

Public Works responded once more by refusing the request. The government Department outlined several reasons why "it is found to be impossible to present it graphically."

However Thomas Kierans, an engineer contracted by the Panel to review this submission was able to do just that. His risk-benefit graphs clearly show that the tunnel option is much better than the bridge option. He also demonstrated that a rail tunnel would score even higher

Dr. Zuirans' submission states that his review "indicates that the rejection of a rail tunnel option and acceptance of a very long bridge means exposure to high safety risks, costs, environmental harm and weather delays."

I have a great deal of trouble with the fact that the tunnel option has not been fully investigated, especially since the Department of Fisheries and Oceans indicated in their brief "that many of the environmental concerns raised by the panel and others would be nullified if the tunnel option, which is included in the Panel terms of reference, were selected."

I will not go into any detail

about the errors and ommissions contained in the supplemental information provided by Public Works. Having read these documents and the reviews of the data by independent experts hired by the panel, I feel that the Panel has enough information. I will point out however, that M.J. Dadswell, in reviewing fishery data, found so many inconsistencies and contradictions that he was forced to conclude that "Forecasts and correlations made from such data are likely to be largely imaginary" The Department of Fisheries and Oceans concurs, saying "that many predictions in the review are based on models which include assumptions and those models must on occasion be linked. This linking creates a chain of uncertainty which increases with each step. This is particularly true of the Ice/Climate/Fishery Interaction Study".

I submit that the possibility of risk to the fisheries must be addressed. Even without information on bridge design, information which may, in fact, reveal more questions, enough data is available to suggest the possibility that the fishery in the Northumberland Strait is facing an uncertain future. This is the only truly healthy fishery in the Maritimes, accounting not only a catch of $100 million annually but also offshoot benefits for processing and outfitting

The Department of Fisheries and Oceans has stated that it "has concerns whether science is capable of providing impact predictions with sufficient confidence that unacceptable effects can be excluded." These scientists have outlined in their submission several areas where risk is possible.

In January of 1988, Glen Duncan, then Project Manager for Public Works Canada stated that "a bridge would not be constructed unless we were 100 per cent ~~sabs~~ sure there would be no damage to the fishery."

Should we not, then, take another look at this whole question?

Should we not back-track a little; and reopen the discussion to include not only a road tunnel, but also a rail tunnel or improved ferry service? This last option should be considered because there are over 600 well-paid, full-time jobs. Recent disclosures have also indicated that Public Works Canada erred in stating that the ferry subsidy is $35 million annually. It is, in fact, more like $21 million and decreasing, and Marine Atlantic has indicated that it can operate on the present basis until the year 2000.

Should we not allow time to collect more data on fisheries catches. More comprehensive information may indicate if there is really room in the Strait for fishery displaced by the link to move into other zones. Sentiment in the fishing community certainly indicates that this is not so. We also need more comprehensive data covering a longer time-frame on catches to make compensation negotiations meaningful.

Given time we would be able to gather more geophysical and technical information on tunnel construction.

Given time we could implement studies into neglected areas such as the effect of algae on ice hardness, or the exact location, nature and effect the the gyres in the Strait.

Most important for the land-based

segment of the Island population, we need time for the Royal Commission on Land Use to present its findings and for the Provincial government to put in place its land use plan.

Keith Storey, an expert contracted to give an independent review by the Panel supports this approach. He states: "Where outcomes are uncertain the next best alternative is to have in place mechanisms that allow rapid review and revision of earlier predictions and assessments, and which provide some flexibility to respond to unforseen or evolving conditions. There is little in this document [he is referring to the socio-economic effects on agriculture] that suggests

Public Works Submission PN →

C

any possibility that the conclusions drawn may be wrong, nor are there any recommendations made to implement monitoring mechanisms to see if they are right".

Dr. Byer, another independent consultant has similar reactions to Contingency Planning. He finds ...... the whole calculation by Public Works of possible risks to the environment in terms of spills and other Worst Plausible Scenario's unacceptable. "The methodology has no theoretical basis, it is wrong with respect to measurement theory, and the resulting risk scores have no proper meaning". He questions the way in which many possible risks are dismissed, and the assumption by Public Works that "these scenarios are too remote to fall in the category of worst plausible".

Given that many risks are being under-estimated, should we not apply less of a Pollyanna view on the project and put in place monitoring systems and contingency plans to protect our land, our water and our air?

Finally while saying on the one hand that they will accept the project, both the Government of P.E.I and the Department of the Environment set down a long list of conditions to be met. Many of these conditions would require back-up and back-dated information in order that monitoring and contingency planning can be effective. We must also ascertain where the funds will come from for offsetting damage to roads, water supply, soil deprivation, fisheries and disaster clean up.

These concerns should be addressed before, not after the project is approved. We must have all available data on how things were before the fact so that we can monitor adverse changes.

Let's plan for worst plausible scenarios, rather than hope they don't occur. If the companies who suggested the fixed link in the first place feel that the project is economically viable enough to have spent so much on their proposals; their economic reasoning will be no less valid ten years from now. This will give them time to fine-tune - to anticipate and address environmental concerns in their design work.

The Environmental Assessment and Review Process has been set-up so that we can guage long-term impacts of development projects. You on the panel are mandated to help us sort out the complexities of the issues effecting our communities

I thank you for taking on this hard task. Your work and wisdom will live on in the history of the Island

Yours
Nancy Murphy
Bellevue Rd
Ch'town RR#1
C1A 7J6 (569-2012)

ISLAND
NATURE TRUST
Box 265, Charlottetown
Prince Edward Island
Canada C1A 7K4
(902) 892-7513 / 566-9150

Presentation to the Environmental Assessment Review Panel on the Fixed Link

Charlottetown
Prince Edward Island

March 30, 1990

on behalf of the [redacted] by
Barbara MacDonald, President
Diane Griffin, Executive Director
Dr. Lawson Drake, Director

A NOT-FOR-PROFIT CHARITABLE ORGANIZATION DEDICATED TO NATURE CONSERVATION
WINNER OF NATIONAL PARKS CENTENNIAL AWARD

Ladies and Gentlemen of the Panel

At the outset, we want to state our pleasure at having the opportunity to make a presentation to you as part of your environmental assessment review of the Northumberland Strait Crossing Project. The Island Nature Trust has long been on record as **being neither for nor against** the proposed project, but we have been on record equally as long as being in support of a full environmental assessment including the appointment of a review panel and the opportunity for public input.

The focus of our organization is specific, that is, we were established in 1979 to work toward the protection of the remnant natural areas of Prince Edward Island. The Trust works with partners including the provincial government and other organizations such as Wildlife Habitat Canada and the Nature Conservancy of Canada to secure natural areas either through acquisition or through our private stewartship program.

The Nature Trust has actively promoted good conservation practices for natural areas and wildlife habitat on Prince Edward Island and elsewhere in Canada. This has involved participating in drafting the Provincial Conservation Strategy, working with the provincial government on environmental legislation and policy, conducting education programs, defending natural areas from inappropriate development, and assisting other provinces in establishing land trusts.

Since the provincial land base is ninety per cent (90%) in private ownership, Prince Edward Island does not have a wealth of Crown land that it can protect as ecological reserves as do most other areas in Canada. However, that makes the value of ecologically important areas in private ownership even more important than in any other province.

Partly as a result of our input during your first round of hearings into the sufficiency of information, we are pleased that more work was commissioned on the impacts on the terrestrial habitat. As a result you now have information as to the location of environmentally sensitive areas of the province including parks and natural areas. The fifty-one natural areas consist of off-shore islands, woodlands, peat bogs, sand dunes, salt marsh, fresh water marshes and ponds and riparian zones. A complete listing of these with their natural features are in the Support Document for Question B on Impacts on Terrestrial Habitat. Other important areas are also documented such as the areas used by migrating or wintering waterfowl, wetlands used by wildlife, as well as lists of rare and endangered species. Needless to say there is some overlap in the above categories. The main point is that this valuable information on the important environmentally sensitive areas has been collected.

The conclusion as per the Supplement to the Bridge Concept Assessment issued on December 15th by Public Works Canada was:

"Overall, the potential increase in tourism to the Island may result in some impacts particularly to sensitive habitats. However, it is anticipated that through planning for sustainable development many of these impacts can be mitigated."

This raises the question of how to protect these sensitive habitats from increased land use pressure as a result of the expected jump in tourist traffic if there is a fixed link. While it obviously falls within provincial jurisdiction to plan for sustainable development, it is also obvious that this may have to take place more quickly than might otherwise have occurred. It is probable that the province will need more resources to enable it to accomplish this planning process and its implementation.

While "sustainable development" has been a term with which there has been some difficulty in definition, the most commonly used definition is the one given by the Bruntland Commission in its report, Our Common Future - "to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs." As part of this process of integrating the environment and economy, the protection of environmentally sensitive areas in an important consideration.

Natural areas are valuable for a number of reasons:

- they are a part of our natural heritage;
- they serve as genetic resources, especially for forestry;
- they provide outdoor recreational opportunities as they are readily accessible to the public, especially in areas where privately owned land may have restricted access;
- they serve as important wildlife habitat for both plants and animals;
- and they serve as outdoor laboratories for educational use

From the point of view of the Nature Trust our greatest concern is with the indirect impact of the fixed link. This is not to say that the direct impact is any less important, it is simply that this is where our mandate lies. It is the indirect and extensive impact of the fixed link which will affect the securement and protection of natural areas as opposed to the direct impact from the construction itself. As indicated in the support document for Question B on Impacts on Terrestrial Habitat, there is a potential disruption to the environment from increased volume of tourists. As well, investments will contribute to the long-term environmental demands placed on the Island ecosystem.

Areas that appeal to tourists because of their beauty and proximity to the shoreline are ones that contain some of the province's best natural areas that have been identified as worthy of protection. Since Prince Edward Island has little land in public ownership, many natural areas are not yet protected. The provincial government and the Nature Trust have made some progress but the majority of sites are as yet unsecured.

The types of natural areas that would be considered most threatened are sand dunes, off shore islands, and rivers. Others that would almost certainly receive some impact as a result of increased tourism pressure are the remnant natural woodlands, salt marshes and ponds. To illustrate this situation we would like to leave you with an example of what has already happened at Blooming Point as people look for "out of the way" areas to visit. This is an environmentally sensitive area of wetlands and sand dunes on the north shore east of Prince Edward Island National Park. Within it, DeRoches Pond is an important recreational area and wildlife habitat. There is a magnificent beach that has begun to attract an increasing number of recreationists, but other than a gravelled parking lot there are no visitor facilities. We have photographic documentation of what the dunes looked like in 1970 and what they look like twenty years later. The increase from very few visitors to hundreds each day has had a dramatic environmental impact on the dunes. This type of uncontrolled activity will accelerate here and in similar areas. It should not be left to happenstance but should be properly planned so the environmental impact can be mitigated.

Even without the influence of a mega project, we have found that speculation has created a problem for conservation organizations especially for sites with extraordinary recreational or commercial value. The Morell River has had many years of work by local residents to improve the fish habitat. The project has been successful and salmon are once again present in enough quantity to have a viable sport fishery. However, local landowners are receiving many calls from realtors representing out-of-province interests wanting to buy property on the river. A recent purchaser is setting up a salmon fishing outfitting camp. This situation is causing conern in the community, especially among those who have worked so hard to restore salmon fishing in the Morell River and who are likely to soon find that their access to the river is restricted. Now is the time to address this situation as other communities are working to restore salmon populations in their rivers but they too will experience the effect of out-of-province interest, especially with an increase in tourism and investments.

There has been increased pressure on the Island's land base, and land prices have risen dramatically in the last ten years due to speculation as well as inflation and relative changes in land prices. This results in a much more difficult situation for us, a not-for- profit citizens organization which has to compete to acquire land in this market place. Our funds for land acquisition come from corporate and private donations and from our annual fund raising efforts. It is going to become increasingly difficult to the point of being impossible to protect any amount of the province's natural heritage if further speculation is caused as an indirect result of a megaproject. Either through your deliberations or as an initiative from the province, there should be comprehensive recommendations as to how to protect the province's natural areas.

- **With an increased threat to the resource, there has to be an increased effort at appropriate protection. A commitment of funds for natural area acquisition and management is needed within the near future.**
- **If sustainable development is to be achieved, then protection of environmentally sensitive areas must be addressed as an important element in this process.**
- **Any necessary legislation and land use policies including zoning have to be implemented well in advance to offset potential negative impacts from the fixed link.**

THE BOTTOM LINE IS ... IF THERE IS TO BE INCREASED LAND USE PRESSURE, THEN WE HAD BETTER BE PREPARED TO COPE WITH IT AND AS SOON AS POSSIBLE.

BRIEF SUBMITTED TO
NORTHUMBERLAND STRAIT FIXED CROSSING
ENVIRONMENTAL ASSESSMENT REVIEW PANEL

March 30, 1990
Charlottetown.

Chairman, members of the Panel; good evening. Through you, I would like to thank and commend the Government of Canada for allowing the general public this opportunity to contribute to the Northumberland Strait Crossing decision-making process.

I speak to you tonight as a well-informed person. I have two degrees in environmental science fields. I have many years of technical experience in a wide range of environmental areas including soil science, ecology, groundwater, geology, waste management, agriculture, education and work with public interest/citizen-based groups. I could have chosen to submit a technical brief at these hearings. It would not have been difficult for me to dissect many aspects of the Bridge Concept Assessment and Supplement. In fact, I've already provided your panel with a detailed technical critique of one small component of the work completed to date; assessment of the potential impact on the Island's groundwater resource.

But I don't wish to repeat those details or pursue further technical details in this brief. I do want to note for the record of these hearings that I found the groundwater impact evaluation conducted as part of the Bridge Concept Assessment Supplement desperately simplistic. In a recent edition of Strait Facts, Public

Works concluded that "a bridge across the Strait will have a positive impact on the Island and the region as a whole and all forseeable adverse effects can be properly managed". To make such a definitive conclusion based on the work published in the Bridge Concept Assessment Supplement demonstrates how compromised the vision of Public Works Canada has become. I train Environmental Technicians and I would consider student work which presented data as poorly as Public Works has presented sediment chemical analysis results in the Bridge Concept Assessment Supplement to be entirely inadequate. You most certainly do not have the technical evaluation you could or should have to proceed with this decision on technical grounds.

But on the other hand, I question whether more extensive technical work would or should further the process. Let's say you did have adequate and thorough technical information on which to base your decision. You would still have to grapple with two key problems inherent in environmental impact assessment; particularly as it relates to mega-projects. These two problems I will call Cumulative Uncertainties and Values in the Closet.

Environmental Impact Assessment, particularly when it deals with large or mega-projects, must consider an immense number of variables. This process has been no exception. And it must make projections into the future about each of these variables. It is the nature of predictive work that each of these projections must include uncertainty. Let us look at some of the topic areas covered in the Supplement;

- Impacts on marine animals and plant populations.
- Impacts on terrestrial habitat.
- Changes in tides, currents, and inshore dynamics.
- Impacts on bird migrations through the strait.
- Impacts of accidental spills of petrochemicals or other hazardous materials.
- Impacts of dredging and soil disposal.
- Effects on groundwater supply and quality.
- Physical interference with commercial fishing activities.
- Effects on tourism and associated development strategies.
- Socio-economic effects within the region.

It is not difficult to see that predictive work in each of these areas must be accompanied by differing degrees of uncertainty. While "Physical interference with commercial fishing activities" would seem to be a category in which prediction with high certainty and confidence is possible, "Impacts on marine animals and plant populations" is clearly fraught with unimaginable uncertainty.

While I don't want to get into details, lets look at a couple of examples. Noone can say tourism will increase by precisely 25%. It would be more reasonable to say that tourism may increase by somewhere between 10 and 40%. (To further that uncertainty, an increase in numbers of tourists will mean nothing positive if those tourists are more transient. Since they will find it easier to get off the island, they most certainly will be tempted to leave more quickly if, for example, the weather turns bad for a day.) Noone can say, we expect so many accidental spills per hundred years. We can only say that we reasonably expect the frequency of accidental spills to be in a range of uncertainty between x and y. And on it goes.

My concern applies specifically to what your panel must now do. Independant consultants, government officials and individuals have made contributions on many specific areas of concern in isolated detail. Your panel must now consider the overall impact by considering the combined conclusions of all of these contributions. How will you combine all of the uncertainties inherent in each projection? For example, when you base second level projections such as groundwater impact on the first level projection of a 25% increase in tourism, what happens? And I am not talking about "cumulative effects" as discussed in the Bridge Concept Assessment. The idea of predicting "cumulative effects" rests on the assumption that individual effects are predicted with high levels of confidence. (Even this area of concern; cumulative effects, has been inadequately addressed according to Environment Canada's February 1990 Review of the Project Assessment)

I am talking about Cumulative Uncertainties. If predictive modelling of each of the impacts listed above leads to projections in each case with uncertainties of say, +/- 20% , what happens to the cumulative result? Is the uncertainty of our overall assessment an additive combination of the individual uncertainties? Is it Multiplicative? And even if we could mathematically combine all of the uncertainties, that result would only be for knowable uncertainties. (We do know many of the uncertainties involved in, say, modelling stress in ice flows)

For such factors as impacts on marine animals, plant populations and bird migrations, where knowledge is highly limited, there are many unknowable uncertainties. (The impact of chlorofluorocarbons on the ozone layer would have been an unkowable uncertainty had we subjected freon to Environmental Impact Assessment at the time it was invented.)

I don't know much about Fisheries but I do know that the Atlantic Fishery is in dire straits despite the fact that government scientists have been throwing a lot of high powered predictive science at fishery problems for some time. I believe your panel even has a submission from DFO themselves questioning the abilities of science to provide impact predictions for complex natural systems.

I think it is very difficult for us to realistically grasp the true impact of this combined uncertainty. It really is a mind-boggling thought. We can hide behind all of the technical documents in the world and feel very impressed with ourselves. We can produce many impressive graphs, tables, computer models. We can employ many teams of consultants, each highly qualified in their own field. But in the end, who are we fooling?

It is very easy and tempting to be lulled into a sense of security simply because we have numbers attached to answers. While individual studies into specific environmental effects may have value in their own right, what value does an overall Impact Assessment have that has considered 40 variables when each variable has a sizeable uncertainty, both known and unkown? This is something your panel must now somehow come to grips with.

No doubt some will say I am suggesting we throw all knowledge out the window. No; I am saying that in the case of Environmental Impact Assessment of mega-projects, we must feel extremely humble about the gaps in our knowledge. The degree to which we can project impact must be viewed with equal humility. This notion of "Cumulative Uncertainties" worries me very much. I would urge the panel to consider it in profound depth.

Another aspect of Environmental Impact Assessment I want to talk about is what I call, "Values in the Closet". Let's imagine your panel was supplied with projections based on the absolute limit of our predictive capabilities of the day. In the end the decision is still not a technical one. Your panel would be sitting down with mountains of detailed technical work into each and every imaginable potential area for impact. But in the end your decision must be made on the basis of providing weightings to the various concerns. You must give birds, groundwater, hotel operators, fish, plants, realtors, fishermen, potato processors, farmers, soil, truckers, ferry workers, aquatic ecosystems, terrestrial ecosystems and the planet different weights. You must decide that this potential impact and that potential impact are not as important as this potential benefit and that potential benefit. If we dig ourselves out from under the extensive collection of technical information gathered to date, we see the decision is still ultimately a value judgement.

You may argue it is an informed value judgement. But given the inestimable effect of "Cumulative Uncertainties" I have just discussed, I'm not so sure we wouldn't be better off with judgement honestly based on gut feeling. And I would argue that most of us involved in the Fixed Link debate, regardless of how much technical information we choose to hide behind, are acting out of a primary gut feeling (for a small handful, there is also the chance to make a lot of money!). I can use technical information to further my gut feelings just as easily as anyone. But I would rather be honest and upfront and give you my gut feeling without the technical camouflage.

I worry about this world. I consider myself highly informed on a very broad range of environmental issues. And unlike many people involved in environmental work today, I also consider myself well informed on how uninformed our knowledge base is. We are in a new era. We are on the brink of what a recently published book termed "The End of Nature". And I do not just mean the end of pup seals, the end of furry bisons, the end of whales, the end of frogs. I mean the end of something none of us can describe but something which all of us know deep down inside; if we would only take the time to listen. And the tragedy is not the loss of nature itself. Nature doesn't care. The tragedy is that despite all of the environmental hoopla of the day, there are still very few of us who are listening, seeing, smelling.

The globe is on the brink of major, fundamental changes, the effects of which the most sophisticated computer model in the world cannot predict. The new Gaia theory of how the earth system operates, tells us we are going fundamentally too far. Rising sea levels, falling sea levels, rising temperatures, falling temperatures, melting ice caps, enlarging ice caps .... I cannot tell you which of these will take place. No one can. But we can tell you that the rhythms of nature we take for granted, the coming and going of the seasons as we know them, are on shaky ground. We can tell you human society is now an agent of processes geological in scale, but on a time frame far faster than the geological. The changes we are effecting are as big as the building of the Himalayan Mountains, as big as the evolution of the atmosphere, but much faster. Nothing could be more frightening.

And here we are, the foolish lot we seem to be, spending lots of good people's time and money deciding on a further project caste in the old mold, based in a mindset that is outdated; a perception that does not fit with what we now know about the changes going on about us. We are spending a lot of time here thinking about doing something that spits in the face of global warning (not warming; warning) signals which could not be louder.

You may ask me, what does my implication of global environmental degradation in this brief have to do with the Fixed Link. It has everything to do with the Fixed Link. Things have become the way they are because of what Dr. Pat Lane called at the recent "Our Island Environment" conference, the 'tyrrany of small decisions'; not because you drive your car to the corner store or because I drive my car to the corner store ... but because we all do it. And here we have a decision much bigger than the one we make when we choose to drive our car to the corner store. In the light of what we know today about global environmental changes taking place, it astonishes me that we are even considering this concept.

I get tired of hearing the government tell me that solutions to environmental problems lie at the level of individual decision-making when the government continues to consider decisions such as this one. Furthermore, how can we caution the less industrialised nations about mega-projects when we continue to embrace them ourselves?

The current state of the earth demands that we humans proceed with utmost caution as we enter the 1990's and beyond. Our primary goals must be those which foster less consumption of resources. A Fixed Link will foster greater resource consumption. It will enhance our abilities as humans to plunder the planet. Prince

Edward Island comes by its status as an island naturally. The water between us and the mainland is there through natural processes. We can choose to breach that barrier humbly with ferry service. We can choose to breach that barrier boldly with a fixed link. The consequences of that choice will be humble consequences on the one hand and bold consequences on the other. Construction of a Fixed Link between Prince Edward Island and the mainland is an idea appropriate to the ignorance of the 1950's and 1960's. It is not a cautious step. It is not a step for this era. It is not progress.

I urge your panel to reject the concept of a Northumberland Strait Fixed Crossing on grounds that, in this day and age with the current knowledge we have about global environmental change, it is not appropriate to proceed with a project for which environmental impact projection is fundamentally fraught with unkowable uncertainty. Such a decision would, to my way of thinking, be progress.

Daniel Schulman.

PRESENTATION TO THE ENVIRONMENTAL ASSESSMENT REVIEW PANEL

Kevin J. Arsenault
March 30, 1990

Introduction

Mr. Chairman, members of the panel, ladies and gentlemen. I would like to thank you for this opportunity to make a presentation to the Environmental Assessment Review Panel. By way of introduction I would like to say that I am currently researching and writing a dissertation for a Doctoral Degree in Social Ethics at McGill University which deals with social change on Prince Edward Island. Most of what I have to say tonight stems from a number of ethical concerns I have about the negative impacts which would come with a fixed link. I am convinced that fundamental issues remain unexplored and key questions have yet to be answered before the impacts from a fixed link can truely be assessed. Despite my many concerns, in the interest of time I would like to focus on just one key issue, namely, the issue of an increase in the traffic flow to Prince Edward Island.

Before dealing with this particular issue, however, I would like to ask a few political questions which are not at all unrelated to an environmental and socio-economic impact study of a fixed link.

First of all, who asked for a fixed link in the first place? Who stands to benefit directly? Who stands up and argues that a causeway will withstand ice and acid rain and rising water from global warming? Who are the people who raise critical questions on whether the fixed link will eventually rob Islanders of something vital from which no return will be possible? It is important to remind ourselves that Islanders didn't organize community groups to lobby for a fixed link. There are many other things Islanders consider far more important to their present and future livlihood for which some federal and provincial assistance would be greatly appreciated. Yet, because it is Islanders who are going to have to live with the impacts if it is built, it is especially crucial that members of this panel understand those aspects of lifestyle which Islanders do not wish to lose when assessing impacts. P.E.I. is a farming and fishing province

Islanders have, on many occasions, clearly demonstrated their strong desire to protect and enhance a cherished rural lifestyle against threatening development projects. Too often the important issues and concerns raised by Islanders have been ignored.

During the implementaiton of the joint Federal/Provincial Comprehensive development plan, for instance, Islanders were pretty much shut out the decision-making process from the word go. Many Island communities and groups publicly resisted the imposed consolidation of schools, the rationalization of food production, and the rapid expansion of that development strategy which is most foreign to Islander's wants and interests--namely, the tourist industry.

An assessment of the fixed-link must include an evaluation of the impacts which not only take into consideration acceptable engineering codes and enviromental law, but also recognize and respect the history and culture of P.E.I.

Public Works Canada's impact studies on the fixed link read more like grant applications than critical assessments. Dr. Philip Byer has commented on the many flaws and failures of Public Works' assessment. Public Works Canada has clearly failed to explore both the liklihood and the consequences of numerous negative impacts. Many key questions have never been raised, no doubt because they deal with negative impacts in terms of values which are difficult to quantify. Nonetheless, the most important concerns have been downplayed or ignored. Assessing socio-economic impacts involves far more than a standard cost-benefit analysis. As difficult as it may be, an impact assessment must consider the effects on many things for which no dollar sign can be attached. It must judge impacts on lifestyle as well as on the natural habitat for, afterall, people are also part of the environment. Because impact studies cannot be understood outside the context of the people affected by development, it is absolutely essential to know what the majority of Islanders truely value and want for their future. What one culture may find exciting another may find stressful and damaging. Only after knowing the cultural aspirations of the people can impacts be assessed.

The cost-benefit analysis of Public Works Canada fails miserably in this regard. It includes only a few items like capital, operating and maitenance costs, time savings, taxes, and vehicle operating costs. Public Works' endorsement for a fixed link rests on the fact that very little research was done regarding negative impacts. Important issues and concerns were completely ignored, and assumption after asumption has been offered in place of actual research. Apart from numerous particular errors and inconsistencies, there is a generally stated assumption that adverse effects can be mitigated. Mitigate adverse effects...we can't even keep up with fixing our annual Spring crop of potholes as it is... There is also an obvious tendency to downplay or avoid altogether what could plausibly happen. The most foundational flaw in this regard is with the matter of increased traffic flow.

I would now like to turn to several important questions related to increased traffic from a fixed link.

Clearly the most important issue that must be settled before it is possible to assess the socio-economic impacts of a fixed link is to figure out how many more people a fixed link would bring to Prince Edward Island, especially during the peak tourist season. Only after this has been established can the impacts on the natural environment, infrastruture, economy and culture of Prince Edward Island be assessed. To my knowledge no serious study has yet been done to provide an acceptable answer to this fundamental question.

Dr. Philip Byer has noted that Public Works Canada bases its assessment on the assumption that there will be no appreciable increase in commercial traffic as a result of a fixed crossing. He also points out that PWC's assessment lacks internal consistency in that PWC also predict an increase of 25% and 50%

in tourism [Byer Comments on Terrestrial Habitat, #3, p.1]. Dr. Byer also finds problems with PWC's worst case scenario projections for traffic increase: Let me quote his comments directly:

> The use of a one time 50% increase in traffic in 1995 [by public works] as the worst plausible scenario seems reasonable, though one could imagine that in the long term, eg 20 years, the bridge together with changes in tourism opportunities could result in an even much greater increase than would happen without the fixed link. In addition there is no statement of the likelihood of this scenario, as requested in the Panel's question.

Determing the extent to which a fixed link would increase visitor traffic is by no means an easy task. The many variables which enter into the picture require detailed and expensive studies. Yet, these studies must be, and have not been, done. Considering changes in traffic with other similar projects may give us some indication what to expect here on the Island.

The Canadian delegation which visited Europe in March of 1988 did attempt to assess possible environmental and other impacts of a proposed fixed link to P.E.I. They studied four tunnel or bridge projects in various European countries. The four projects were 1. The English Channel Tunnel, 2. The Oland Bridge, 3. A number of smaller Norwegian links and tunnels, and 4. The Great Belt Link. Of these projects only the Oland Bridge and various smaller Norwegian links and tunnels are completed projects. Although the final report of the delegation offered only general information and personal observations, it did make one very important observation which is of particular relevance for an assessment of increases in traffic resulting from a P.E.I. link. Here I quote directly from the report:

> One thing common to both the completed projects visited was that initial traffic increase as a result of the fixed links being in place was substantially underestimated.

Substantially underestimated? How substantially? The 6 km. bridge linking Sweden with the Island of Oland began operation in 1972. Before the bridge was built, aprox. 500,000 vehicles made the crossing annually. In the first year of bridge operation, the traffic increased by 500% to around 3 million.

Although this sudden and momentous increase in traffic flow did subside, it finally stabilized at around 11,000 vehicles per day, a rate still "three times the traffic flow of the previous ferry service". Urban centres close to the Island of Oland no doubt account for some of the increase, but the phenomenal growth in the tourist industry would indicate that the link also brought many from further afield. The report notes that during the tourist season Oland has five times the number of permanent residents. This is roughly the proportion of tourists to residents on Prince Edward Island BEFORE A FIXED LINK. What will it be after a fixed link? This is one question that needs to be given a great deal more study.

The basic information contained in the delegation's report raises serious questions regarding the socio-economic impacts of a fixed link for P.E.I. Prince Edward Island is not Oland. We have no desire to become nothing but a tourist resort and are fundamentally opposed to a tourist strategy based on uncontrolled, continuous growth. No amount of growth in this sector of the economy will answer the need for integrated and sustainable social and economic development. Tourism will always be seasonal in nature and employment will continue to rely on unskilled labour at minimum wage rates with no benefits. Islanders are well aware that in other places where tourism did become a growth industry, local resources become ever more commercialized and culture becomes more superficial.

The Environmental Assessment review panel must uncover all the factors which are likely to affect the rate of traffic to P.E.I. with a fixed link in place. Key factors include the very presence of a link, a provincial tourist strategy based on continued growth, increased reliance on ground transportation for travel and transport, etc.

Another equally important question is this: How many tourists to P.E.I. would constitute too many? No one would deny that uncontrolled tourism could easily lead to tourist overkill with disastrous negative impacts for both the environment and local lifestyle of Prince Edward Island. This observation raises two important questions: 1. What would constitute an acceptable limit to tourism in terms of the annual number of visitors? and, 2. What strategies or particular controls can be implemented to ensure that established limits to tourist growth could be enforced?

(1) After analyzing and assessing both the quantifiable and non-quantifiable impacts of tourism, sociologists, such as Walter Sullivan, have concluded that the limits per year for tourism should not exceed a number equal to that of the local permanent residents.[1] The Environmental Assessment Review Panel should seek out similar additional studies on tourist impact in determining both the obvious and more subtle impacts of tourism.

Concerning the question of controlling tourist growth, researchers and politicians recognize the need and the difficulty of doing this. It is not surprising that suggestions in this regard tend to focus on transportation. In an extensive study of Tourism titled Tourism: the Good, the Bad and the Ugly, the phenomenon of "tourist overkill" is carefully explored. The authors recognize the importance of having a clearly defined tourist strategy to limit and control tourist growth. To achieve such control they suggest that, and again I am quoting,

> In enforcing limits, locals should not be afraid to create artificial tourism constraints such as stopping airport expansion if that is necessary to maintain the livability of their community and the beauty of their environment."[2]

Controls on incoming transportation are clearly the most effective means of ensuring the rate of visitors does not escalate beyond what the local people desire or can manage.

---

[1] Sullivan, Walter. Tourism called Peril to Culture in Pacific, Vancouver Sun, August 29, 1975. [Found in the brief presented to Gilber R. Clements, Minister of Tourism, Parks and Conservation, by the Social Action Commission of the Diocese of Charlottetown and the Prince Edward Island Committee of Ten Days for World Development, p.5]

[2] Pulsipher, Berreld L. and John E. Rosenow. Tourism: The Good, the Bad and the Ugly, Lincoln, Nebraska: Century Three Press, 1979.

How many more vistors will the fixed link bring? How many visitors is too many? These are two key questions which have not been answered with adequate rationale and research and must become the focus of further research and reflection. There is a third, and perhaps more important question relating to traffic flow, however, and that is "how many more tourists do Islanders want? To answer this question we need to recall a bit of recent history related to the development of tourism during the last two decades.

As I mentioned earlier, the 15 year Development Plan had as one of its key objectives the development of a Tourist industry on Prince Edward Island. As imported planners outlined blueprints for resorts and golfcourses, Islanders became increasingly concerned over the direction the Island was taking with the sudden and rapid expansion of tourism. Judith Alder's excellent article "Tourism and Pastoral: A decade of Debate", documents this important controversy over tourism during the 70's. During this time tourist impact studies were commissioned which are still very relevant to the present assessment of a fixed link. Under pressure from Islanders, Premier Alex Campbell commissioned an independent study to determine the impacts of tourism on P.E.I. In May of 1974, ABT Associates Inc.✓ was offered a $84,000 contract to undertake this study.[3] Nearly two years later, in Feb., 1976, the firm made public their research findings along with a series of recommendations.

The recommendations of the ABT study were straightforward and uniquivocal. Through extensive public opionion surveys the consulting firm found that fully 76% of Islanders did not wish to see any further increases in the number of tourists coming to P.E.I. and held the opinion that the government should not be spending money to promote the tourist industry. The report also stated that a doubling of the number of tourists during the next eight to 10 years would have serious negative impacts on Islanders and their way of life. In a meeting with the provincial cabinet the consultants stated that the Island had not yet reached the environmental limits but was reaching the sociological limits already. They suggested that the government should "not try to maximize tourist growth" and even went so far as to offer some suggestions on how transportation services could be used to control the growth of tourism: They stated that, and I quote,

---

[3] ABT Associates Inc., Tourism Impact Study for PEI Government, 1976.

> Little has been said for example, by provincial representatives or Islanders about the possibility of limiting ferry crossings to discourage the growth of tourism. This option bears serious consideration.[4]

Premier Alex Campbell responded more cautiously by saying that more tourists could probably be handled without serious damage to the environment but said it was obvious Islanders themselves simply don't want too many more tourists. Even the Tourist Association agreed that doubling growth would be unacceptable and that controlling growth was absolutely essential.[5] Are these important concerns still with us? I am sure they are still with the people of this province but unfortunately they no longer seem to be with the government. The current liberal government is following a Tourism Strategy which betrays both the findings of this earlier study and the aspirations of Islanders. The strategy, referred to as "Tourism 2,000" serves as a guide for the future development of tourism in P.E.I. yet makes no mention of the need for limits to the number of annual visitors to P.E.I. In fact, according to a 1988 Government document titled A statement on tourism development it states that the government fully intends to promote the industry and predicts a steady 3% annual growth in the number of visitors.

---

[4] "Consultants Probe Islander's Attitudes," Guardian, February 13, 1976, p.1.

[5] Guardian, February 14, 1976.

The aim is to achieve a goal of over one million visitors annually by the year 2,000.[*] That's roughly 9 times the number of residents. I find it deplorable that the Provincial government is tacitly accepting a fixed link "if the studies prove out" rather than demanding answers to many important questions for which satisfactory answers have not been provided. I hope that Industry Minister Robert Morissey's recent misguided dictate to this panel to focus exclusively on the environment and leave the remaining concerns to the Provincial government is not taken too seriously by the panel.

By way of summary I would say that all available indicators suggest that a fixed link will not only bring an unacceptable increase in the number of annual visitors to P.E.I., but more importantly, it will eliminate the major means by which visitor traffic can be controlled and/or curtailed, namely the Ferry Service. Islanders are not willing to accept any mega-project that will take away our ability to control growth in the tourist industry. Fundamental questions have simply not be answered or adequately studied. That the Environmnetal Assessment Review Panel recognize that a fixed link would effectively eliminate a natural way to control growth in the annual rate of visitors to Prince Edward Island if such became necessary; and that losing this control is especially unacceptable at this time given the fact that the provincial government is currently pursuing an irresponsible tourism strategy by refusing to recognize the need for a "cut-off" to the annual rate of visitors to Prince Edward Island. I thank you for your patient attention after such a long day of hearings. As this round of public hearings draws to a close, I trust that the panel is courageous enough to seek out answers to these difficult but fundamental questions.

---

[*] Prince Edward Island Government, A Statement on Tourism Development, October, 1988.

HEANEY FARMS

THE NAKED TRUTH

The bare and unquestionable facts

SUBJECT:

THE MISSING LINK

Not the fixed link

ROBERT HEANEY
(902) 886-2597
(902) 886-2727

GARY HEANEY
(902) 886-2264

HEANEY FARMS
CLINTON - KENSINGTON R.R. 6
PRINCE EDWARD ISLAND - C0B 1M0

Kerrytown

Good Seed Doesn't Cost — It Pays

KERRYTOWN BRAND seed potatoes

MR CHAIRMAN, MEMBERS OF THE PANEL, FELLOW CITIZENS:

Today I would ask for a few minutes of your time, now I promise and as you will soon discover that I am not a scholar I wish to focus on two words in the english language. You will soon discover that my vocubalary is limited, just a plain old country boy.

DRESS AND APPEARANCE

Those two words are heritage and future, may I say thank you to the folks on the nay side. If in the past the people supporting a permanent crossing and solution to our transportation problems had used their ability and have had as great a degree of conviction the link would have been in use for many years and we would probably be planning a replacement in 50-100 years.

They have talked long and loud with nostalgic overtones. They have used their emotions and played on ours.

What is this heritage they wish preserved for their children and grandchildren? Please note the youth who will not have the previlege to remain here, long gone unless we change our economic base, we cannot offer them security and even the possibility to remain here.

Is this the heritage we find today or in many cases the heritage many people who come here to retire discovered when they arrived? May I say I have great affection and admiration for those folks. Some of them are great friends and I appreciate the contribution they are making to the fabric of our Provence. Is it possible that heritage is a gray area, just a bit hard to define.

IN MY TWILIGHT YEARS

Here is some of the highlights of my heritage. I believe there would be great similarity in the lives of many P.E.Islanders of like age. Look at the contrasts of today. Homes without adequate central heating, practica no modern communications, remember my first radio, television, fax, computers. Why just the telephone. Telephone story Mr. Frizzle Mr. O'Connor.

NO ELECTRICITY

RURAL ELECTIFICATION

Inadequate plumbling and now we have unlimited hot water and luxurious facilities. Driving our children and being driven to school by horse and sleigh, walking in bitter cold and inclement weather. Now we have school bus service.

I remember when most rural families did not have an automobile. Now some people have two not to mention vans, pickup and 4x4's.

I remember breaking winter roads- my most vivid visual recollection is is aproximately 40 years ago seeing the snowplow labouring up our road(Kerrytown Road (downtown Clinton)where I still reside. Now we expect our roads to be cleared of snow by 7 a.m. or before and salted and sanded as well.Who do I owe the most for my good fortune? Close your eyes and picture a young couple and their young family. Daniel and Harriet Heaney. Harriet being great with child standing on the wharf in Ireland (precisely 150 years ago this year) 1840. looking to Canada the unknown. Speak of courage of being daring of facing danger. That family lost a child overboard and a new baby was born namely Robert Heaney- my great Grandfather.

GRATITUDE TO DANIEL

I believe we are at the crossroads. We must prepare with care for the future, whether we are fishermen, farmers, educators, business people, city or country folks, we must take risks. It is time for a new vision for our Provence, we must look beyond our horizon, we must broden our horizons. We must entice those who live beyond to visit, to settle here and make it their production and business base. Let's be realistic , we do not possess a monopoly on anything, we do grow the world's best seed,proceding and table potatoes. We harvest the most delicious lobster, mussels, clams and other seafood. We must make changes if our young people are to have a future here.

Our Provence has a most wonderful natural magnitism but our present ferry system is a very effective blockade.

I appreciate the dedication committment and good service provided by the CN Marine workers, but must caution them, just because the ferry link remains does not guarantee you jobs. You will see major cuts in service, cuts in manpower on the ferry. It is predicted that unions in the decade to come will be less able to protect their membership. Yes, friends let us realize there is very little sacred when we predict or accept promises at face value.You are very committed but statements make it clear that your company has very little commitment if indeed any. The statement that they decided not to buy a very reasonably priced boat. Where would we be if we as farmers and fishermen took that attitude Just remember only two promises, adequate and continuous transportation to and from the mainland, and the railway when did you last see or hear a train on PEI. We will never again see it. Let's be realistic, very little is sacred, most of all not promises, covenants and committments of government.

At a previous session I presented a bwief for the Kensington Chamber of Commerce, two valid questions that I felt unqualifed to answer.

How many young men and women have been born on P.E.I. have gone to other provences, states or countries of the world? It is impossible to give an unchallanged answer. My sources say in the last 150 years somewhere between 675,000 and 1,000,000 not including the brave women and men who gave their lives and rest on foreign soil.

How come the English Channel is able to be conquered by boat. We are mostly talking about people transportion, no ice and many barges, boats, ports to service the British Isles. Vehicles not interchangeable

How does this all affect Heaney Farms. We are having a horendous problem getting trucks to take our seed potatoes to our makkets. I am sure fishermen face the same problem down the road. Our fledgling manufacturing industries are affected, our tourist operators are concerned. We must be daring, venturesome, courageous. We must realize we have only one decade to prepare for our plunge into the next centmmy.

As we say in DOWNTOWN CLINTON, PEI we only have three options as citizens;-

We can be leaders
We can be followers
Or we can get out of the way.

Dare to be a Daniel
Dare to stand alone
Dare to have a purpose
Dare to make it known

Cars and vehicles not interchangeable between Britain and continant.

SUPPLEMENT

I remember two of my friends and neighbors arguing or better discussing the missing link both men of the soil. One blessed with good health, the other having had grave medical problems necessitating many trips to Halifax and later having major surgery. The challange to one "But you have never waited for the boat or been stuck in the ice in almost unbearable pain."

Recently talked to a very successful businessman who moved his family from P.E.I. some 24 years ago. Why did you leave P.E.I. ? He became frustrated that the link was not to be built at this time and felt it was difficult to function in his business. Now the man has raised a fine family and has been extremely successful in Agricultural Marketing, by now he would have been a giant in P.E.I. Potato Marketing.

Stress & Pressure.

72 Queen Elizabeth Drive
Charlottetown, PEI C1A 3A9
February 28, 1990

Ms. Betty Lynn Burdett
Information Office
Holman's Building, 2nd Floor
25 University Avenue
P.O. Box 2221
Charlottetown, PEI C1A 8B9

Dear Ms. Burdett;

We are residents of PEI living in Charlottetown. For private and business reasons we regularly travel off-Island by car using the CN Borden/Cape Tormentine ferry. From the media it now seems that the Fixed Link Project is going to be implemented. Although we are supporters in principle to the idea of a fixed link, we have concerns which we feel have not been adequately addressed in any of the reports/discussions in the media up to this time. Our concerns are as follows:

1. If a bridge is confirmed as the fixed link choice we feel strongly that full-proof confirmation must be provided assuring travellers that the bridge will be safe to cross in a mid-winter snow storm with gale force winds and poor visibility. What will be done when an 18-wheeler truck skids in mid-bridge during such a storm and blocks traffic in both directions? If for safety sake the answer has to be that the bridge will be closed during the stormy weather, waiting times could be longer than at present with the ferry.

2. If a tunnel is the confirmed choice, what steps will be taken to prevent terrorists arranging to blow up a tanker truck in mid-tunnel and causing a fire-ball to explode along the whole length of the tunnel when filled with traffic?

/2

These are seriously posed questions which to our knowledge have not been publicly addressed by those promoting the fixed link and which must be in the minds of many potential travellers who may be obliged to use the fixed link.

Please include these considerations in this round of research and planning so that in due course the public can be suitably reassured.

Yours sincerely;

Sally and Bill Robertson

Sally & Bill Robertson

rc'd Mar. 1/90

BAYFIELD/TORMENTINE
VOLUNTEER FIRE DEPARTMENT

"Yes we make house calls"

Bayfield
New Brunswick
EOA-1EO

Phone
538-7576

Feb. 17 1990

Dear Sir or Madam;

I would like to express my feelings on the fixed link project in relationship to the Bayfield Cape Tormentine Volunteer Fire Department. which would be servicing the New Brunswick side of this project in the event of a go ahead.

This department is not for or against the project, but we are concerned if built with the loss of Marine Atlantic, they have been good neighbors over the years, putting at our disposel. There water supply, air bottle refill station, and any other equipment on a 24 hour call.

The concern of this matter is who will supply what we will lose with a closure of Marine Atlantic.This loss would result in a cut back to the fire protection given to the people of this service district.

I trust a solution, would be found to meet are needs before approval would be given on the fixed link project.

Yours Truly.

Philip M Palmeter

Philip M Palmeter
Fire Cheif
Bayfield Cape Tormentine
Volunteer Fire Department
Bayfield N.B.
EOA 1EO

Submission to the Environmental Assesment Panel Reviewing the Northumberland Strait Crossing Project

The Environmental Review Panel is to be commended for its earnest efforts to provide information to address the many concerns of fishermen and others directly affected by the proposed Fixed Link. However, serious questions still remain about Public Works Canada's commitment to protecting and preserving the environment of the Northumberland Strait. Does the proponent (PWC) give full consideration to how risks or damages that must be borne for the "greater common good" can be minimized and mitigated? The history of the project to this point leads me to believe not.

When the former Minister of Public Works, Stewart McInnis said in 1988 "The beauty of this project is that the private sector takes the total risk,"[1] he seriously discounted the value of the marine environment to fishermen in particular and the public at large. His attitude that "public hearings on the environmental issues are not needed because extensive work has already been done"[2], may have communicated itself to officials in his department.

Is it any wonder that the Honourable Bernard Valcourt noted when appointing this Environmental Assessment Panel in January of 1989: "Although Public Works has conducted a number of environmental studies and subjected all of the fixed crossing proposals to detailed scrutiny and judged them against rigid criteria, various members of the community, and area fishermen, continue to express concerns regarding the construction of a bridge."[3]?

The information provided in the "Generic Initial Environmental Evaluation", the "Bridge Concept Assessment", the "Supplement to the Bridge Concept Assessment" and the comments on them confirm that there are environmental risks involved in a Fixed Link, particularily the Bridge Concept. "In all cases, the risks to the environmental components identified in the marine biological environment are greater with the bridge alternative than with the tunnel alternative."[4] Why should a fisherman or member of the public accept these risks (even assuming they are for the "greater common good") if there is an alternative for lessening them? Public Works Canada has eliminated from further consideration the option of a tunnel. It is heartening that this "Panel has concluded that it is not prepared to accept those reasons [for eliminating the tunnel option] as a final statement on that subject at this time, and has therefore decided to retain the tunnel as an item for further consideration and possible discusison during the remainder of this public review."[5] Unfortunately it is not possible to intelligently discuss and review PWC's decision or the tunnel option if PWC continues to "maintain the confideniality of all aspects of developer proposals *including evaluation documentation* "(emphasis mine).[6]

This strikes me as contrary to the Environmental Assessment and Review Process Guidelines Order section 3: "...the initiating department shall... ensure that the *environmental implications of all proposals* for which it is the decision making authority are *fully considered* and where the implications are significant, refer the proposal to the Minister for *public review* by a Panel."(emphasis mine).[7]

Another anomaly in the process is that the Panel is reviewing not an Environmental Impact Statement i.e."A detailed documented assessment of the potential significant environmental consequences of *any proposal* that is produced by, or for, a proponent, *in accordance with the information requested by an environmental assessment panel* for a public review."(emphasis mine)[8]; but rather the Panel is reviewing a "Bridge Concept Assessment". A "Concept or Generic Review" is described by FEARO as "Held very early in planning for a range of proposals dealing with new concepts or technologies".[9]

The foregoing leads me to believe that PWC is not in good faith permitting the environmental assessment (for the "greater common good") of a Fixed Link but sees the Environmental Review Process as a temporary roadblock to building a Bridge.

As a fisherman and resident on the Northumberland Strait I would be pleased to see this Panel recommend the rejection of the present proposal.

David B. Harding, MFU Local 4,
Pictou Island, N. S. BOK 1J0

1) Financial Times of Canada, Sept.19, 1988, p.10.
2) The Globe and Mail, Oct. 1, 1988, p. B4.
3) PWC Communique, Jan. 12, 1989.
4) Generic Initial Environmental Evaluation Executive Summary, PWC, Mar. 15, 1988, p. 17.
5) Supplement to the Bridge Concept Assessment, PWC, Dec. 15, 1989, p. 2.
6) Ibid, Introductory letter from Delcan- Stone and Webster to PWC.
7) Canada Gazette Part II, Vol. 118, No. 14, p. 2795.
8) Federal Environmental Assessment and Review Process, FEARO, p. 7.
9) Ibid.

LINKLETTER (P.E.I.) LTD.
CHARLOTTETOWN R.R. 7, P.E.I.
C1A 7J9
Phone: (902) 566-5558

March 4, 1990

Environmental Assessment Review Panel
Charlottetown,
Prince Edward Island

Dear Panel Members,

Prince Edward Island has many positive qualities which help to set us apart from a world which is becoming more polluted and urbanized by the day.

I view the fixed link as a threat to these qualities, which Prince Edward Island retains and many areas have lost.

The fixed link is being promoted under the banner of progress. Progress for me is the protection of our environment and is the most important factor before us today.

Dr. David Suzuki said in the Guardian on November 11, 1988 that "Scientists don't really know what will happen to the Northumberland Strait if a bridge is built. We are enormously ignorant of these ecosystems. The benefits of a fixed link don't measure up to the possible environmental consequences." I agree with him and so do many other Islanders.

A few years ago we almost built a causeway between New Brunswick and Prince Edward Island. Today we realize that this would have been a monumental mistake. Consider the environmental damage created by the causeways built across our tidal rivers around the Island. These rivers have been choked and have become devoid of much aquatic life.

A fixed link mega project may get us to the mainland a little quicker but I am not willing to trade this convenience for a project which threatens the environment on and around Prince Edward Island.

Sincerely,

Scott Linkletter

Scott Linkletter

SL/bm

Mar. 5/90
Bayfield, N.B

Dear Sir; or Madam

Further to my conversation to Betty Lynn Burdett ~~this~~ by telephone this morning I am writing about my concerns to the either fixed link. I have been a commercial fisherman for 27 years and have fished directly where the fixed link will be built. Also I have a Smoke Fish Plant under the name of M D Simpson & Son Ltd and employ 15 people when in full production. My concern is if the fixed link goes and I have to close my business as I would not be able to pay the wages that a contractor would, . I would like to know if I would be subsized or left out in the cold. Please present this to your panel.

Thank You
I am
Mr Merton Simpson

Telephone # 506-538-7752 Bayfield, NB
E0A1E0

or M.D Simpson & Son Ltd
RR#1 Bayfield NB
E0A1E0

SUBMISSION TO THE ENVIRONMENTAL ASSESSMENT PANEL REVIEWING THE NORTHUMBERLAND STRAIT CROSSING PROJECT

Attached for your consideration, is a locator map produced by the Prince Edward Island Development Agency. The concentric distance circles show Prince Edward Island at some 800 km from Boston, 1200 km from New York and 1400 km from Toronto, all principle markets for our primary products; agricultural, fishery and tourism.

Geography, Economics and The Fixed Link

Prince Edward Island is presently at a comparative disadvantage to its closest neighbours. In physical terms, we are separated by only nine miles of a relatively shallow and temperate body of water. In practical and economic terms, we are at least two hours or 120 miles east of Nova Scotia and New Brunswick. This adds considerably to the costs of doing business on Prince Edward Island. The communication inconvenience and psychological distance to "the mainland" is in many instances sufficient reason alone to preclude Prince Edward Island from serious consideration by many entrepreneurs searching for a non-central Canadian site from which to operate their enterprizes.

Prince Edward Island like its sister provinces, is a marginal region. We consistently have the unenviable reputation of leading Canada in terms of the highest or near highest unemployment rate in the Country (currently approx. 17%), the lowest levels of earned incomes or stated conversely the highest dependency ratios on individual transfer payments by the federal government; eg. U.I. benefits, social assistance, old age security, and guaranteed income supplements, as well as block transfers by the federal government to support government operations and to provide public services such as the delivery of health and education programs. Prince Edward Island, unfortunately, is the poorest of its sister provinces on the other side of "the Strait."

While a condition of Prince Edward Island's agreement to enter the Canadian federation was the maintenance of a continuous link to the mainland by the federal government, there is no guarantee of the level of service. In a fiscal environment of continuous restraint and a national deficit that has spiraled, how long before difficult decisions are taken to seriously curtail service in an effort to contain or reduce the extensive subsidization of the Marine Atlantic P.E.I. to New Brunswick run?

Two other coincidental events warrant consideration. With the termination of rail services, P.E.I. no longer has a bulk transportation system at its disposal. This further compounds "the distance" and geography problem discussed at the beginning of this section. The second occurrance is the Canada - U.S. Free Trade Agreement (FTA). The gradual elimination of the tariff barriers between us and the Americans presents both a challenge and opportunity. The opportunity is for our producers to take advantage of the most densely populated region of the United States presented by the market area in New England, to which the construction of a Fixed Link would mean that P.E.I. is suddenly 120+ miles or at least two road (truck) hours closer. The challenge will be from other entrepreneurs in Nova Scotia, New Brunswick, Ontario or Quebec or in indeed adjustment forced upon us by the availibility of American products. In order to meet this challenge, the Fixed Link represents an opportunity for P.E.I. to have one of its comparative economic disadvantages removed. Indeed the Fixed Link is something akin to geographic magic. Its construction has the sudden impact of making Prince Edward Island closer than Halifax (the major metropolitan centre of the Maritimes) to the Boston market.

Indeed with some appropriate marketing, P.E.I. is suddenly a very attractive location for offshore interests wishing to secure access to the tariff-free American market under the auspices of the FTA from a Canadian site. Our "Island Way of Life" and the availibility of land and labour at reasonable terms and the advent of the information age, combined with daily air links to New England makes P.E.I. in many respects more attractive than Toronto.

A completely risk free Fixed Link is impossible. Nothing that we as humans do is without risk. To demand such is naive, if not ridiculous. Farmers take incredible risks each year. They have no control over late or early frosts, over the lack of rain or too much, of not enough sunshine or too much, nor do they have meaningful influence over the prices they receive for their toil. Fishermen take significant physical risks to themselves each day they leave port. We are all well aware of their financial risks, as exemplified by the current crisis in the Atlantic Fishery.

May I conclude by seeking that the panel not be swayed by emotive arguements about the quality of "the Island Way of Life." We are not a perfect society. We have as many, in some respects more social problems than non-insular societies. My lay interpretation of the documentation being released concerning the environmental risks of the project, particularly those to the fishery suggest that they are not inordinate. If after your further deliberations you are convinced that these risks can be contained to manageable levels, I would ask that you bear in mind the tremendous long term economic life line being presented to Prince Edward Islanders by the Fixed Link and that the Panel not deny the overwhelming majority of Islanders their democratic wish as expressed so clearly in the Plebiscite on this important issue.

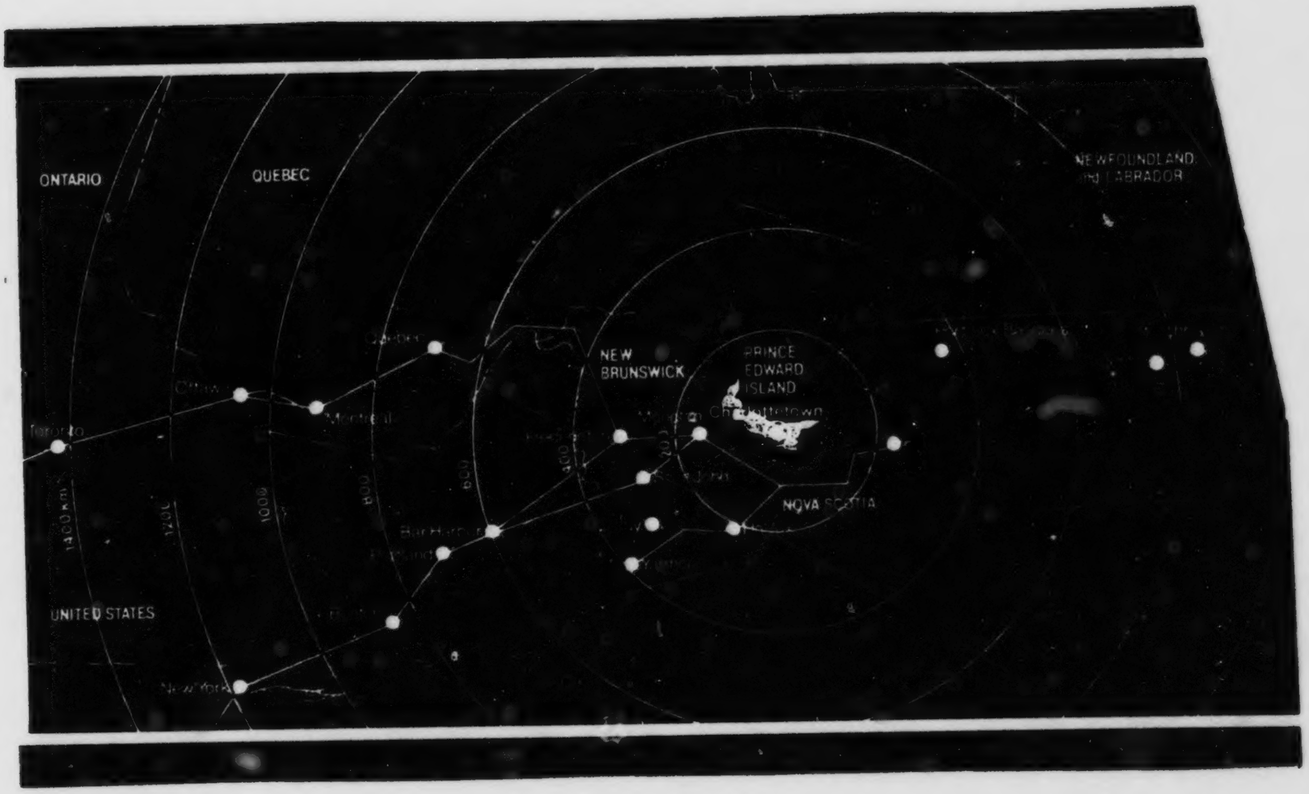
Respectfully submitted,

Byron Lindsay

Byron Lindsay
York Point, PEI
March, 1990

BL/aw

Attachment


ONTARIO
QUEBEC
NEWFOUNDLAND
and LABRADOR
Quebec
Ottawa
Montreal
Toronto
NEW
BRUNSWICK
PRINCE
EDWARD
ISLAND
Moncton
Charlottetown
Saint John
NOVA SCOTIA
1400 km
1200
1000
800
600
400
200
Bar Harbor
Portland
UNITED STATES
New York

PARRSBORO & AREA INDUSTRIAL DEVELOPMENT COMMISSION

BOX 303, PARRSBORO, N. S., B0M 1S0 (902) 254 - 3333

March 14, 1990

F.E.A.R.O.
B.F.E.E.E.
File
Ref:
MAR
REC'D / REÇU

Mr. Jim Clarke
Executive Secretary
13th Floor, Fontaine Building
200 Sacre-Coeur Boulevard
Hull, QUEBEC
K1A 0H3

Dear Mr. Clarke:

The Parrsboro and Area Industrial Development Commission, in support of our local M.P., Bill Casey, in his efforts to have the fixed link between P.E.I. and the Mainland become a reality, wishes to point out the obvious reasons for doing so.

The fixed link project will provide the following short term benefits (during construction) to our area which, unfortunately, has a very poor economic situation resulting from the depletion of our forest resource.

1. The area between Parrsboro and Amherst has literally mountains of sand and gravel deposits which would be used in construction as neither Prince Edward Island, New Brunswick or the remainder of the north shore of Nova Scotia has this resource available. However, care will have to be taken when removing these deposits to assure the least possible damage both environmentally and aesthetically. This is especially important as the geology of the area will be featured in the Dinosaur Fossil Museum planned for Parrsboro.

This resource would provide many man years of employment through the loading, trucking, etc.

2. Amherst, Cumberland's largest town, because of its' proximity to the mainland end of the project and through the existing and rapidly expanding service, housing, schools, manufacturing, hospital sectors and other amenities would benefit greatly by providing these and other services to a portion of those employed on the project.

This activity would certainly create employment for those living in rural Cumberland County.

...2

3. The project itself, once again because of its' proximity to Cumberland, would create many direct jobs for men, women and equipment and provide a source of earnings which would allow the financial freedom for some to become investors in their own futures through businesses of their own, an opportunity which is available to a limited few at present.

The long term benefits, as seen by the Commission, would relate to tourism.

The fixed link would provide an opportunity to schedule bus tours and other events which would bring together the attractions located in Cumberland such as the Anne Murray Centre in Springhill, the planned Dinosaur Fossil Museum in Parrsboro to open in 1991, the 9500 acre Wilderness Park at Cape Chignecto with those on Prince Edward Island such as the beaches and warm water and the Anne of Green Gables Theatre and site, all of which could be promoted successfully as one very large tourist attraction to be sold on the national and international markets bringing substantial new dollars into Atlantic Canada.

The fixed link would provide further unlimited opportunities by allowing a freer flow of products and people between Nova Scotia and Prince Edward Island allowing both provinces to benefit from the strengths of the other.

In summation, the Commission is very excited about the future and the opportunities which will be provided by the fixed link project and looks forward to an early announcement confirming the commencement date.

The Commission would be pleased and honoured to assist you in any way in developing the project.

Yours truly,

Ralph L. Foster
Executive Director

RLF/ds
pc: Bill Casey, M.P.

SUBMISSION TO THE ENVIRONMENTAL ASSESSMENT REVIEW PANEL OF THE PRINCE EDWARD ISLAND FIXED LINK PROJECT

re: Ferry service between Caribou, N.S. and Wood Islands, P.E.I.

From: Alan D. Samostie
5252 Tobin St., Apt. 806
Halifax, NS
B3H 4K2

Dear Sirs / Mesdames:

As a frequent traveller between Nova Scotia and Prince Edward Island, I would like the Panel to address a number of concerns regarding continued operation and improvement of ferry services between Caribou, N.S. and Wood Islands, P.E.I. in its recommendations and Panel Report on the fixed link project.

Whereas Marine Atlantic Ltd. currently provides year-round ferry service between Cape Tormentine, New Brunswick and Borden, P.E.I., the Northumberland Ferries Ltd. service between Caribou, N.S. and Wood Islands, P.E.I. operates only from 1 May to 20 December (or until ice renders the Northumberland Strait impassable). During the winter months, motorists and bus passengers must travel several hundred additional kilometres between Nova Scotia and central or eastern P.E.I. via the Cape Tormentine - Borden crossing.

If the proposed fixed link project is constructed, many travellers would still be forced to travel via this circuitous route. But because existing ferry services between Cape Tormentine and Borden will presumably cease upon completion of the project, there are a number of opportunities for improvement of ferry services on the Caribou - Wood Islands crossing. Loading ramps and dock facilities currently located at Cape Tormentine and Borden could be dismantled and re-assembled at Caribou and Wood Islands. The Marine Atlantic fleet, particularly the icebreaker M.V. Abegweit, could provide year-round service between these terminals and ease overcrowding aboard the smaller Northumberland Ferries Ltd. vessels during peak summer periods.

A number of technical and economic issues must, however, be resolved if service improvements are to be implemented. Operation of larger vessels may require dredging of deeper channels and ferry slips at the Caribou and Wood Islands terminals. Extended operations would also require the sale of Marine Atlantic vessels to Northumberland Ferries Ltd. or assumption of operations by Marine Atlantic.

Although construction of the proposed fixed link project will facilitate transportation between New Brunswick and P.E.I., I do hope that the Panel will also recommend operation of improved, year-round ferry services between Caribou and Wood Islands in its Report.

Sincerely,

Alan D. Samostie

Alan D. Samostie

FIX LINK OR FERRY SERVICE

PART I - Let's Talk Known Facts

Is the Cost Saving for Ottawa or PEI in construction of a fixed link?

OTTAWA - wins if the fixed link built at 600 million with NO EXTRA COST
PEI - loses

Reasoning:

PEI in addition to 600 million has to deal with the following Increases:

1. UIC jobs affected directly
2. Welfare jobs affected directly
3. Family break-ups affected directly

In addition, spin-off jobs and industries will reduce. Some companies will fold and others relocate, one again increasing

1. UIC
2. Welfare
3. Family breakups
4. Companies dissolved - no requirement for the ship related products
5. Companies'work forces reduced.

Finally, all of the above will be felt by the merchants of PEI as buying power will be reduced as a result stocks will not move as quickly nor in the same quantities.

Logic

PEI has a population of 120 - 125,000 people; 80,000 voters, approx. 55,000 workers full and part time, approx. 35,000 year-round employees.

Any company needs customers especially through the long cold bleak winter months of November/December/January/February/March/April and sometimes May. We know a fixed link if built will in these months reduce customers; i.e. directly Marine Altantic jobs and spin-off jobs which supply milk, eggs, meat, drycleaning, paint, liferafts, etc. to help support local companies.

WHY

The population is low because look what attracts people: 1) climate
2) jobs
3) benefits for entire family

PEI has climate for 4 months - mid May/June/July/August to mid September; this is not Vancouver Island!
JOBS - no hydro power or potential to develope. Company is privately owned and all power is generated, a draw back as power rates are highest in Canada.

... 2

No natural minerals to develope.
No hills for skiing, etc.
Companies do not like PEI for their familys' sake as a direct result of lack of family benefits - a) major shopping, with variety
b) major sports
c) major arts/theatre
and the list goes on and on for the winter months; therefore a small working force which will be reduced by a fixed link cannot support companies which depend upon customers, summer and winter months.

PART II

FUTURE

Part II deals with what may be and this is difficult for every opinion, positive or negative, environmental, social or economical, there are two sides supportive and non-supportive.

I resolve this section by stating a scenario "snap your fingers The Link is now Completed and Operational!"

To date, I have not seen one company willing to start up or relocate to PEI if a link will be built. Why - as previously expressed in Part I;
1) power costs - privately owned
2) climate only good 3 - 4 months
3) limited, very limited family benefits in winter
4) companies respecting employees concerns
5) small, small place

One company was going to start up here which goes against my logic; however, the link or ferry system was not an issue and this small minded Province turned away a high-tech company which relocated to Halifax and with a sigh of relief by the employees as Halifax has a lot more to offer in winter than does PEI. Ask the original workers privately about this fact!, not the employees that supplemented the core workers.

A major concern is what about existing plants who have common owners in New Brunswick, will they maintain their existing plants in PEI if the same plant is closely located in New Brunswick or Nova Scotia? I feel not likely because when one observes it is usually cheaper to transport a finished product rather than the bulk material only when the distance is too great to ship.

I request this Board to weight heavy this statement; compare on a cost basis, Free Trade companies are leaving Canada for varied reasons but it all boils down to the dollar.

So I state, why have a plant costing high power bills in PEI, heating costs and employees salaries when this can be eliminated by a fixed link and truck the product to a similar plant in New Brunswick, a relatively short distance away. Keep in mind the shipping of bulk product by the distance compared to plant costs and same distance with finished product.

... 3

PART III

AVAILABILITY

Will a fixed link be available for use more than a ferry service?

Will a ferry service be available for use more than a fixed link (bridge)?

YOU DECIDE

Two years ago the M/V "John Hamilton Gray" had a fire December 24th; repairs approx. cost $100 - 150,000.00. The vessel was made safe for the travelling public in 1 - 2 days, repairs took approx. 9 - 12 wks.; slight interruption to the travelling public. The same type of damage to a bridge could shut down until completion. Even is the ferry was out of service, there is a second vessel to carry the public. Will we have 2 bridges? NO!
Everyone talks about winter and ice, foreget it! TALK summer; PEI is like Portage and Main Street in Winnipeg, Manitoba, it is always cold and windy regardless of wind direction or velocity.
PEI is the only province in which I have lived (resided in Manitoba, British Columbia, Newfoundland, Nova Scotia, New Brunswick) that regardless of wind direction it always has strong winds that hit you in the face. Imagine Hamilton, Ontario, the new bridge is always shut down because of wind velocity. Take our proposal 265 ft. above the water, sandwiched between northern New Brunswick and southern PEI (a very important factor) as this acts like a tunnel and the wind velocity is something else; many a day the ferries run with white caps or heavy fog. One will not have the availability of transportation on the same type days with a bridge which must be high to allow vessel traffic through the Strait.

People living in Ottawa will care less once this item is built, Islanders will have to live with the results, one way or the other.

Any ferry captain or fisherman will tell you radars pick up wind squalls as a result of moisture contact and their velocity; please listen to the people who know the sea, the waves, and the winds.

I only wish I had the opportunity to speak on this topic. There are so many points regarding the actual construction; how steel is now rusting even in protected concrete, just look South to the United States with existing bridge problems of corrosion.

The bottom of the Strait is not suitable for major construction of a bridge and is best suited for a tunnel to spread forces out over a large area not pinpoint as a bridge construction.

... 4

PART IV

CONSULTATIONS

Has anyone contacted to date any of the spin-off industries and how the link will affect their livelihoods and their employees and their company which now supports the economy of PEI, summer and during the long winter!

The following lists ship related products and/or businesses:

1. liferaft depots
2. paint companies
3. rope, wire rope
4. meat (local farmers)
5. dairy products (local processors)
6. laundry
7. fire extinguishers and systems
8. machinery
9. navigational equipment
10. major shipyards for refits
11. marine schools (teaching positions)
12. shipyards

PART V

COMPARISONS/EFFECTS

There is no one site or situation that has all the elements such as PEI; however, compare the Cape Breton Causeway; the unfulfilled promises that this would create jobs, companies would locate in Cape Breton, etc. Time tells us different (one exception is the Canadian Coast Guard College, only company to survive, and this was a political plum to help a depressed area even after the causeway was built) and why is this statement true!

For the same reason why over 50% of Canada is unpopulated or sparsely populated is that no one wants to live in these small areas which offer little towards family benefits and life styles;as previously explained PEI 's problem is the long winter (7 - 8 months).

The Cape Breton Causeway does not have the same impact regarding lose of direct jobs and spin-off industries as will (if this link is built) the effect in PEI due to the shear magnitude of PFI operations and this is very obvious, in fact so obvious, this is why a link undertaking was shelved before and should be today for the social and economical benefit of Islanders and Canadians working in Canadian shipyards where these large ferries creat work when they go to refit. Yes it costs money; however, look at the returns - Canadians working, operating Canadian vessels with Canadian crews, refits for Canadian yards. For the record, the shipping industry as a whole in Canada is 65% unemployed, almost an extinct profession.

One sees all kinds of efforts to protect endangered species today and rightfully so, but what about an endangered profession. Losing these vessels will have an impact regarding

1. marine colleges closing
2. people will no longer seek professional certification or trade certification in PEI
3. shipyards already hard pressed for work and will lose yet another source.

Keep an open mind when contemplating the elimination of a ferry service. You are eliminating a great many other situations and creating many negatives all for the sake of what conveniences peoples' ego to the challenge to build a mega-project, line wealthy peoples' pockets who own rock quarries in Nova Scotia and New Brunswick and make foreign contractors rich during construction all at the poor Islander's cost; who is like a mushroom being fed you-know-what and very professionally being kept in the dark regarding the entire picture so this mega-project can be pushed through for approval.

Another comparison is since the causeway was constructed in Cape Breton, the fishing has declined greatly and when this happens in PEI of once again a larger scale inshore fishery is a large summer industry which provides direct employment and many spin-off positives at great dollar value will be lost.

... 6

PART VI

TOURISM

Give me a break! Certain, well-paid, individuals obtain all kinds of ink in the local newspaper such as "860,000 visitors who injected 108.3 million into the provincial economy in 1989".

I concur, but this was over the Summer without a link. People come for the climate, in fact in the Winter survey the travel bureaus in PEI, you'll be shocked how many Islanders leave this Province in Winter and this director thinks tourists will come to PEI in Winter even though Islanders are leaving for warm climates. What a red herring!

I will state more people will travel across if the Summer months are good. However great the increase of tourists, say 10, 20, 50%, the spending will not be directly proportional. One other fact, people will stay shorter periods of time in poor weather and drive merrily to warmer areas with less rain and you can watch the tourism industry wiggle out of criticism when cottages are not fully occupied as now book for 2 weeks and hope for good weather or have no accomodations.

I see that with a fixed link, book for 2 weeks, stay 1 week and if weather terrible, drive away to New Brunswick, Nova Scotia (perhaps that is these provinces logic to support the link) and thank you director and president for your well paid tourist thoughts.

SUMMARY

I would like to comment further on soil structure, sand movement, fishing, bridge construction, tunnel, and most of all why people still quote the original vote as final. I believed a second vote was to be completed as did many others; now the pro side uses the original vote as a tool that Islanders want this link - No Sir!

If the poll would have been (1) Improved Ferry Services or (2) Bridge; the results would be very positive in favour of a ferry service. This was known in advance, therefore, the vote was split very skillfully by adding a tunnel idea which was known not to be feasible for one main reason - to maintain a safe level of oxygen free of carbon monoxide poison would only be obtainalbe through electric exhaust fans which draw tremendous power electrical which would be supplied by New Brunswick and paid for by Islanders who would see rates skyrocket as our power is all generated by a private company.

... 7

Now one sees why New Brunswick is in favour - bring on the second power plant; PEI will pick up the tab.

I hope Islanders do not throw away their candles because that is all we can afford if this future mego-project is developed to enrich the rich and devestate the Island taxpayers.

Respectfully submitted,

E.O. Classen

The Hotel/Motel Group
"Cooperative accommodations properties on Prince Edward Island"

P.O. Box 432
Charlottetown, P.E.I.
C1A 7K7

The Charlottetown Hotel
Charlottetown

Garden of the Gulf "Quality Inn"
Summerside

Inn on the Hill
Charlottetown

Islander Motor Lodge
Charlottetown

Kirkwood Motor Hotel
Charlottetown

Linkletter Motel
Summerside

MacLauchlan's Motel
Charlottetown

Prince Edward Hilton International
Charlottetown

Rodd's Confederation Inn
Charlottetown

Rodd's Royalty Inn
Charlottetown

Wandlyn Inn
Charlottetown

THE NORTHUMBERLAND STRAIT CROSSING

ENVIRONMENTAL ASSESSMENT REVIEW

A SUBMISSION BY

THE HOTEL/MOTEL GROUP

March 21, 1990

MARCH 21, 1990

PRINCE EDWARD ISLAND MUST HAVE THE OPPORTUNITY TO COMPETE WITH THE REST OF THE COUNTRY AND WITH ALL AREAS OF NORTH AMERICA ON AN EQUAL FOOTING. TOURISM IS BECOMING VERY IMPORTANT TO THE GLOBAL ECONOMY. P.E.I. MUST NOT BE LEFT BEHIND BY OUR COMPETITORS.

CURRENTLY, OUR ONLY TRANSPORTATION LINKS ARE VIA TWO FERRY SERVICES TO THE MAINLAND, ONE OF WHICH CEASES FROM DECEMBER UNTIL APRIL, AND TWO REGIONAL AIRLINES FOR REROUTING VIA HALIFAX OR MONCTON.

EVEN AS I WRITE, THE PRESS IS REPORTING THREATENED STRIKE ACTION AT THE ONE YEAR-ROUND FERRY SERVICE ON WHICH ISLANDER'S DEPEND.

P.E.I. IS DEPENDENT ON SEASONAL INDUSTRY, AGRICULTURE, TOURISM AND FISHERIES. THE OLD SAYING "YOU'D BETTER MAKE HAY WHEN THE SUN SHINES" IS NO WHERE MORE APPROPRIATE THAN ON P.E.I.

WE DESERVE A TRANSPORTATION SYSTEM NOT SUBJECT TO THE SCHEDULING WHIMS OF THE AIRLINES, MARINE ATLANTIC OR NORTHUMBERLAND FERRIES.

NOT ONLY ARE THE CURRENT TRANSPORTATION MODES EXPENSIVE FOR ISLANDERS AND VISITORS BUT THEY ARE EXTREMELY INCONVENIENT. PLANS TO TRAVEL OFF-ISLAND MUST BE ACCOMPANIED BY ADVANCE PLANNING AND SCHEDULED LEAD TIME. WHILE ISLANDERS MAY BE GEARED TO LIVE WITH THESE REALITIES, OUR INCOMING VISITORS ARE NOT SO INCLINED.

RECENT STUDIES SUGGEST A SIGNIFICANT INCREASE IN VISITOR TRAFFIC WERE A FIXED LINK IN PLACE. WHILE THIS IS VERY IMPORTANT TO THE TRAVEL INDUSTRY, OF WHICH THE ACCOMMODATION SECTOR IS BUT A PART, IT REVEALS IN THE REVERSE, THE PERCEIVED COMMUNICATION HANDICAP WHICH NOW EXIST WITH OUR PRESENT TRANSPORTATION SYSTEM.

THIS PROVINCE CURRENTLY SHARES A RATE OF UNEMPLOYMENT SECOND TO NONE IN OUR ENTIRE COUNTRY - WE'VE CAUGHT UP WITH NEWFOUNDLAND IN THIS UNENVIABLE RESPECT.

ISLANDER'S LEAVE THE ISLAND TO VISIT ELSEWHERE FOR A VARIETY OF REASONS - DURING THE WINTER SEASON - FEW MAINLANDERS RETURN THE GESTURE. IT SAYS SOMETHING; WE ARE NOT CONVENIENT AND THERE ARE MANY CONVENIENT DESTINATIONS.

THE TRAVEL INDUSTRY IN THIS PROVINCE IS CURRENTLY THE SECOND PRIMARY INDUSTRY AFTER AGRICULTURE. DIRECT EXPENDITURES IN THE SUMMER "TOURIST" SEASON ACCOUNT FOR MORE THAN $100 MILLION. BASED ON A 2.1 MULTIPLIER THIS INFLUENCES EXPENDITURES OF $210,000,000.

AS EMPLOYERS, THE INDUSTRY HAS NO RIVAL. WE EMPLOY FAR MORE PEOPLE THAN DO EITHER AGRICULTURE OR FISHERIES.

NOT COUNTED IN THE ABOVE ARE THE HUNDREDS OF PERSONS EMPLOYED AND THOUSANDS OF BUSINESS DOLLARS CONTRIBUTED BY THE TRAVEL INDUSTRY DURING THE SO CALLED OFF-SEASON.

MANY OPPONENTS OF A FIXED CROSSING POINT TO INCREASED TRAFFIC BUT NEVER TO AN IMPROVED TRAFFIC FLOW WHICH WOULD FOLLOW A FIXED CROSSING. THE DAYS OF SCHEDULES AND RUSHING FOR THE FERRIES WOULD BE BEHIND US.

THE RECENT STUDY BY COOPERS & LYBRAND REVEALS THAT DURING THE PEAK VISITOR SEASONS, THE OCCUPANCY OF ROOFED ACCOMMODATION IN THE PROVINCE WAS ONLY 77%. THE MAJOR PROPERTIES IN CHARLOTTETOWN AND SUMMERSIDE RECORDED AN AVERAGE OCCUPANCY OF 47.7% ON AN ANNUAL BASES, WELL BELOW ACCEPTABLE STANDARDS AND IN MANY INSTANCES BELOW OPERATIONAL BREAK EVEN. THE ANTICIPATED INFLUX OF VISITORS CAN NOT ONLY BE ADEQUATELY SERVICED BUT IS NECESSARY TO SUPPORT OUR CURRENT LEVEL OF FACILITIES.

THE ISLAND CANNOT REMAIN ISOLATED IN THE RAPIDLY EXPANDING NORTH AMERICAN AND GLOBAL MARKETS. WE MUST HAVE A MORE EFFICIENT TRANSPORTATION SYSTEM. IT'S TIME WE HAD THE OPPORTUNITY TO KEEP OUR CHILDREN AT HOME AFTER THEY'VE FINISHED THEIR EDUCATION.

WOULD ANYONE CONSIDER SWITCHING OFF THEIR AUTOMOBILE ENGINES AND HAVING A HORSE PROVIDE THE HORSEPOWER TO PROPEL THEM FROM AULAC TO AMHERST EVERY TIME THEY TRAVELLED TO NOVA SCOTIA FROM NEW BRUNSWICK? IN THIS DAY WHEN IMPROVED TRANSPORTATION LINKS ARE AVAILABLE AND ARE BOTH ECONOMICALLY AND ECOLOGICALLY SOUND, THE CONTINUED DENIAL OF CHANGE FOR IMPROVEMENTS IN OUR TRANSPORTATION SYSTEM IS NOT DISSIMILAR TO THE FOREGOING ANALOGY.

THE HOTEL/MOTEL GROUP DOES NOT ADVOCATE CHANGE WERE PERMANENT DAMAGE LIKELY TO OCCUR TO OUR ENVIRONMENT; HOWEVER, WE DO CONTEND THAT NO CHANGE WILL DO IRREPARABLE HARM TO THE SOCIOECONOMIC ENVIRONMENT OF THE ISLAND. WE CANNOT CONTINUE TO LIVE IN A VACUUM. THE WORLD IS GLOBAL - WE MUST RECOGNIZE THAT WE JOIN, OR WE STAGNATE.

GOD HELP US ALL IF THE CONSTITUTIONAL REFORMS ARE NOT SUCCESSFUL AND THIS COUNTRY IS TORN APART. MAYBE SOME OF THE OPPONENTS THINK WE CAN ALSO "GO IT ALONE." THE HOTEL/MOTEL GROUP CERTAINLY WOULD NOT SHARE THIS VIEW.

THE HOTEL/MOTEL GROUP SUPPORTS THE PROVISION OF A FIXED CROSSING TO THE MAINLAND

THE HOTEL/MOTEL GROUP IS AN UNOFFICIAL ASSOCIATION OF THE MAJOR HOTELIERS IN THE CHARLOTTETOWN AND SUMMERSIDE AREAS AND THIS BRIEF IS PRESENTED ON BEHALF OF THE FOLLOWING MEMBERS.

BEST WESTERN MACLAUCHLAN'S MOTEL
INN ON THE HILL
C.P. PRINCE EDWARD
CHARLOTTETOWN HOTEL
ISLANDER MOTOR LODGE
KIRKWOOD MOTOR INN
QUALITY INN
RODD ROYALTY
CONFEDERATION INN
QUEEN'S ARMS
WANDLYN MOTOR INN
DUTCH INN

TOWN OF BORDEN
BRIEF
TO THE
ENVIRONMENTAL REVIEW PANEL
IN
CHARLOTTETOWN, P.E.I.

MARCH 28, 1990

G.R.T. Ramsay - Mayor

Ralph J. MacDonald - Deputy Mayor

C.F. Leard - Town Administrator

G. R. T. RAMSAY
MAYOR

C. F. LEARD
TOWN ADMINISTRATOR

TOWN OF BORDEN
244 BORDEN AVE.
BORDEN, P.E.I.
C0B 1X0

Mr. Chairman and Members of the Environmental Review Panel:

Thank you for permitting time to put the Town of Bordens concerns before you.

As most people are aware the proposed fixed link between P.E.I. and N.B. would be devastating to Borden and the immediate area.

One cannot argue against the premise that some communities which are relying on the construction and economic benefits that a fixed link would bring.

After dismantling and the dust is cleared our community would be in a precarious position.

Without mass infusion of federal funds or a compensation package that would bring hope to this area. Ours, would be a community left to die.

Some studies have indicated that Borden and Area should look to tourism as a replacement for the ferry system. Sure tourism is an industry - an industry which is a two-and-a-half month season - what do we do then. Lock up our community and move away.

I think you'll all agree it would be a poor replacement for an industry that operates 12 months a year.

With a fixed link the tourism industry preceive that this will increase the flow of tourism dollars to the Island, increase the market for P.E.I. products with a more timely and efficient means of transporting these products to the mainland, and increase industry developement on the Island. These assumptions can in no way be guaranteed. In respect to tourism for instance, the season is two-and-a-half months at best.

Another area of concern is, if a bridge is built as seems to be the most likely decision, what of the severity of island winters.

How often will the bridge be congested, and traffic stopped because of severe winds, blowing snow, and freezing spray on windshields before the strait freezes over?

G. R. T. RAMSAY
MAYOR

C. F. LEARD
TOWN ADMINISTRATOR

TOWN OF BORDEN
244 BORDEN AVE.
BORDEN, P. E. I.
C0B 1X0

The fact that engineers of the bridge might also underestimate the force of pack ice and its influence on a fixed cement structure is another unknown. Furthermore, if there was a problem supporting the building of a causeway in the 1960's, before that project was stopped, what problems will be faced by the bridge builders, with an ever-changing island land mass, made of sand? No bridge has ever been built under these circumstances.
What will happen if the bridge simply becomes too costly to build partly through the construction! There are too many questions and not enough concrete answers.

A fixed link between P.E.I. and the Mainland is neither pie in the sky nor a certainty. It is by any standards a proposed mega-project, a multi-million-dollar plan that will offer many jobs in the making and fewer jobs in operation.

We are concerned about the 650 ferry workers who see their jobs disappearing, and this must receive more attention.

Fishermen are concerned about the marine environment and their traditional catches.

There remains a body of Islanders united by the fears of the heart. Islanders are environment conscious, concerned perhaps even more about the state of their natural surroundings then they are about the fiscal regime.
Clearly, there cannot be any rush to a contract while major questions need answers.

The Town of Borden believes that none of us would be here today presenting final briefs, if the plebisite in Jan. 1987 was presented in a more appropriate fashion, in other words made more clear. There was much ambiguity concerning the question.

Thank you panel for listening to our concern.

Borden Town Council

March 28, 1990

Charlottetown Hotel
Charlottetown, P.E.I.
March 29, 1990

Presentation On The Northumberland Strait Crossing Project
Made At A Review Hearing On The Project
Conducted By A Committee Of
The Federal Environmental Assessment Review Office

%%%%%%   &&&&&&   &&&&&&   %%%%%%

IN PRAISE OF LIFE ON AN ISLAND

On September 28, 1937, Lord Tweedsmuir (John Buchan), then Governor-General of Canada, paid his first visit to Prince Edward Island, and in this very building gave a stirring address on Island Magic. With the Committee's indulgence, I quote from that address at some length:

> " What is there about an island that makes its inhabitants re-
> "gard it with peculiar pride? . . . .   It has always been so
> "in history from the time of the ancient Greeks, who placed their
> "earthly Paradise not on any mainland, but in what they called the
> "Fortunate Islands, somewhere out in the western ocean. It was
> "from the island of Delos that the god Apollo sprang, and the lit-
> "tle barren island of Ithaca was the home of the great Ulysses.
> "From the tiny island of Iona Christianity came to Scotland. In one
> "of the finest and most poignant songs of exile ever written, the
> "Canadian Boat Song, the heart of the wanderer does not turn back
> "to any valley on the Scottish mainland. It is the 'lone shieling
> "on the misty island' of which he is thinking. It is the same
> "throughout literature. In the Middle Ages romance centred in the
> "mysterious islands of the western sea. . . . .
>
> " What is it that gives an island this special charm for the
> "heart of man? I think the main reason is that an island has its
> "clear physical limits, and the mind is able to grasp it and make
> "a picture of it as a whole. Our imagination may be kindled by big
> "things - the far-stretching magnitude of the British Empire, or the
> "vastness of the Dominion of Canada. But it is on little things that
> "our affections lay hold. Cast back your memories to your childhood,
> "and I think you will find that it is some modest-sized place that
> "lingers most in your recollection: the wood where you played, a cor-
> "ner of the sea-shore, the little stream where you caught trout, the
> "field which you regarded as your special property, the bit of the
> "garden at home which was your own special garden. As we grow older
> "our interests are enlarged, but our most idiomatic love is reserved
> "for a village or a parish, what Edmund Burke, in a famous phrase,
> "called 'the little platoon in which we were reared.' That is the
> "fixed point from which we adjust ourselves to the rest of the world."

To be honest, it is true that His Lordship, having paid this touching tribute to the beauty and power of island life, went on to insist tactfully, firmly, and unmistakably on the great need and value of the broader loyalties, to the greater polities of nation and empire.

. . .

It is well to hear this case made from history and literature, so as to arm one's self against the insidious, or even blatant, power of language and cliche: e.g. 'So-and-so is so insular in his thought'; or again: 'Don't get trapped in a pitiful provincial cast of mind'; or again: 'Those people have been so insulated from reality!' Without denying some truth to views that have become so current, one can still ask 'Can these conventional criticisms be reconciled with Tweedsmuir's insights? May I offer, in this context, a few reflexions on Form and Limit: a kind of poor man's echo of the lovely thesis: Small Is Beautiful, of that fine and sensitive economist E.F. Schumacher.

1. Environment & Personality. A matrix is needed for the assimilation of the flood of experiences that make up our lives. Unending experience without reflexion can never produce wholeness. The person nurtured in a 'contained environment' may well be favoured in respect of this requirement for mental and emotional health. The record of persons coming out of such an environment onto a broader stage of life often seems to bear out this contention, in terms of: security, serenity, confidence, imagination, and leadership. If this seems too generalized a statement, it can at least be verified in the case of natives of P.E.I., who have often received that testimony from others and have in all modesty come to believe that they have been able to confirm this as an unearned advantage in their own case. Can this be all chauvinism or delusion?

2. Form and Limit in Geography and Art. Form and limit, as the very constitutive factors in the geography of islands, may helpfully be compared to these parallel elements, or factors, in all art. All the fine arts, in effect, manifest this common paradox of form: namely that when they are setting out to express the well-nigh inexpressible and might reasonably expect to be offered the fullest scope possible, they encounter instead from the outset a host of conventions, limits inherent in their medium, etc.; or, having imbibed the wisdom of tradition, they will often prescribe for themselves the frame or scale that turns their challenge into something manageable and verifiable. And, oddly enough, it is principally this element of form that becomes the key to any final success; for, it is the frame that compels form and matter to 'come to terms', or to respect and interchange totally the one with the other; it is the frame that compels the complete working-out of relationships - those of all the parts to the whole and of all the parts to one another.

3. Another Application, and Some Contrasts. In the domain of geography, the same effect can be observed. In the long-standing fascination with that unique explosion of human creativity, ancient Greek civilization, there are many who trace its earliest cause and greatest advantage to a fact of geography: the great advantages of a benign and nurturing climate and plentiful fertile soil, operating within the most fortunate framework of many small secure valleys formed by a network of mountain ridges that fanned out over most of the large peninsulae. These circumstances focused and concentrated all activity from the outset; and they greatly facilitated a quick arrival at that stability and security of life which we call leisure - the basis of all culture. Indeed, even that supreme Greek achievement, the unmatched political form which is the city-state, probably owes its highest perfection - total integration - to this same original blessing and experience.

. . . 3

(Sec 3, cont'd)

By contrast, consider the American experience, where (as some, at any rate, consider) a very noble ideal eventually became thwarted, or arrested, by a pristine geography that at first offered almost an excess of advantages. For, beginning with that first deliberate risk, inherent in the great enterprise, - that of cutting all one's roots - the experience went on to encounter the traps of: *the geographic solution* to many social, economic, and political problems - 'Pick up and move on - and on'; and the other trap of *the expansionist illusion* - where progress was simply: more, bigger, faster - like some Olympic ideal gone mad. Can one not find in these experiences the probable roots of many of our environmental horrors of today, as well as of much of the rapacity of our economic practices? Prince Edward Island, at any rate, has, in the opinion of many of us, suffered from even such a well-meant experiment as the Development Plan, a massive devastation of a noble and deeply integrated culture through the heavy-handed intrusion of just such wasteful and undisciplined practices (as those mentioned in the American experience), born of the deceptively happy circumstance of untrammeled experiment and endless horizons. Were some gifted Islander to compose a great Symphony of Doom as lament for a departed way of life, the motifs for such a symphony would surely include such ones as: Bigger is better; Hail, the Mega Project!; Pour On The Grants; and Let Tomorrow Pay! In geography as in art, it is the *accepted limit* that eventually leads to the respectful, responsible, and real solution of the problem. P.E.I. society left in control of its own destiny can most probably heal itself of its wounds and adapt to any really necessary economic, social, or cultural changes. But if P.E.I. loses its 'islandness', what assurance can anyone offer that it will not lose not only its identity and dignity, but also its chance to continue making to the rest of Canada a unique and precious contribution.

4. *Some Characteristics or Habits Nurtured by Island Situations*.

a) *integration* vs *isolation or dissipation*. Insular living usually promotes husbandry and frugality, since everything is a given - part of the puzzle and the challenge. Nothing should be wasted; and the most surprising co-habitation of *things* can lead to the most surprising and happy marriage of things. This produces a culture that has at least *some* built-in resistance to mass-culture and stereotyping.

b) *creative adaptation* vs *lethal rigidity or unyielding strife*. 'Live and let live!' is nowhere truer than it has to be in island living. This is not to say that enmity and hostility are never encountered in island societies. But rather it is simply indicating that destiny often throws together in a restricted situation persons or elements which simply have to work out a *modus vivendi*, or they will end up destroying one another or surviving in a pattern that can hardly be called life, where all interaction is stifled and a death-like rigidity takes over.

c) *proportion and perspective*. *Internally*, island societies usually develop considerable judgement, efficiency, and contentment in *ordering all things to scale*. And in *external relations*, the very distance that separates them from the outside favours a happy and most useful cast of vision: the long view and the whole view: *perspective*. Both these habits travel well and are most serviceable in other environments.

(Re. [illegible] [illegible] [illegible] - Pastor St. Theresa's Church; MORELL, P.E.I.
CCH 150

A SHORT PRESENTATION

By Anna Fraser

March 30, 1990

Mr. Chairman and Panel Members:

In assessing the imperative of a fixed link crossing, it is appropriate at this time to take into your consideration the possible imminent break-up of our country. With two regions setting up the machinery for alternative options, and a third considering doing so, this idea, however horrendous, is not expressed here as being radical, but as a distinct possibility. In the event that possibility becomes a probability, obligations of the federal government toward this province, and indeed the whole Atlantic region, could conceivably be placed on hold, or at the very minimum, weakened, while the country struggles through a period of uncertainty, or conversely, dissolution (which, God forbid!)

I had other commitments preventing my hearing the Panel question the Public Works Canada Link personnel this morning (March 30, 1990). I regret having missed that enlightening exchange.

When a fixed link comes, as it assuredly must some day unless we disappear altogether with changing climactic conditions, Islanders should ensure the preservation of the values they cherish through an infrastructure designed to manage change in a way acceptable to them. But whether or not organized, Islanders are sufficiently resilient to meet new challenges undaunted and unafraid as they have done so well in the past, with enough imagination and realism to incorporate them into their "Island Way of Life," with it being greatly strengthened as a result.

Without restating the many concerns already heard, I should like to emphasize that non-resident ownership of pristine shorefront properties should be addressed well in advance of a fixed link to ensure the continuation of the privileges and rights Islanders have heretofore enjoyed; and to ensure also an appreciation of nature's magnificent endowments throughout our Island by newer Islanders and tourists. Marketing of land and properties should be monitored under guidelines that protect affordability of housing and home ownership while allowance is made in line with inflation for moderate responses to market upward pressures.

I shall now offer you some opinions expressed to me re the merits of a bridge vs a tunnel of whatever kind--rail or vehicular; or a continuation of the ferry service. Further, the letter enclosed (from today's Guardian) is light-heartedly illuminating. Opinions: (Gut responses)

Travel by bridge will be awful in bad weather.
The bridge will be too icy to be safe. (From the elderly largely)
The bridge will be closed to traffic too often. Moreso than ferries.
(Definitely not mine)
The bridge will help the fishery.
The bridge will hurt the fishery.
The ferries are safer than the bridge. What if an accident?
The bridge is much safer than the ferries.
The bridge will be an attraction for people from all over the world. (Many)

I wouldn't go through a tunnel. (Claustrophobia)
I'm afraid of oxygen cutoff in the tunnel.
We won't see the Island's red cliffs from the tunnel. (Many)
We should have a tunnel for environmental reasons.

The ferries are lovely if only there were enough of them. (MANY AGAINST DELAYS)

Much confusion which the results of your hearings may hopefully dispel.

Whatever is done, it must be environmentally right and consistent with the conditions, all of them, set forth by Premier Ghiz. From what I have experienced and observed, a fixed link is a necessity. All things considered, if we are to have a link, for economic reasons the tunnel is an option. But for aesthetic reasons, for traveller interest, for ease of transportation, I would prefer a bridge if environmentally feasible. And with appropriate guidelines in place for good management, the Island should remain the paradise we have long deemed it.

One point more: Though truck traffic will no doubt decrease, there is bound to be an increase — Wood Islands Ferry, when a link (fixed) exists.

PROTESTING THE MOVE

Editor:

I must protest against the ill-considered move to repair the Hillsborough Bridge. What we in Charlottetown need is for the bridge to be removed entirely and the Hillsborough river to be restored to its free-flowing natural state, unobstructed by the piers and causeway which have had such a terrible effect on our climate.

The current state of the bridge is clear proof that such structures are not safe, and that they are all liable to fall down under the stress of heavy traffic, high winds, ice floes, icebergs, earthquakes and other acts of God.

The bridge, apart from being a menace, has in fact served no useful purpose since it was built, because it only takes an hour longer to take the natural scenic route form Southport to Charlottetown via Mount Stewart. Can you imagine how short-sighted and ill-advised people were, away back when, in deciding to build an environment-polluting bridge, when a short drive or a picturesque ferry-ride across the Hillsborough would have allowed them to reach their destination sooner or later!

We must resist at all costs this unseemly desire to take short-cuts, just to speed things up. The life-style cf our grandfathers was of course the golden age which we have nearly lost through our passion for that idol, PROGRESS.

Another advantage of doing away with the link to Southport is, of course, that the peace-loving inhabit- town will be spared the invasion of those unpleasant people on the other side of the water with their totally alien life-style, not to mention the ever-present danger to our environment in being exposed to their disease-ridden vehicles.

Lets get rid of this link which Charlottetown does not need. If some contact with the other side is felt to be absolutely necessary, let's create jobs by re-establishing the only natural method of transportation, the ferry-boat. Think of the joy in the hearts of all those ferry workers who have been out of work since the ferry between Southport and Charlottetown was cancelled in favor of that aberration, the Hillsborough Bridge.

Join with us to de-link this useless link. Support the de-linkuents.

I am,
A.I.R. Galloway

Pure Perrier gushes back

VERGEZE, France (Reuter) — Pure Perrier is gushing back at the rate of six million bottles a day, as its makers rushed to replenish stocks wiped out by a health scare and a global recall.

While Perrier's shares sparkled back up on the Paris stock exchange, its 3,300 employees at the mineral water source near this southern French town were working flat out to replace 160 million bottles withdrawn from world markets, including Canada.

"We hope to turn a near catastrophe into a great success," said Perrier spokesman Jean-Pierre Roux.

Roux, the company's human relations director, said some employees face dismissal for neglecting to clean filters that purify the gas in Perrier. All recalled supplies would be destroyed, including bottles, he said.

March 30. 1990

The Chairman
Environmental Assessment Review Panel
Fixed Link Project PEI./NB

I am presenting this brief as a member of the public. I live in Sherwood P.E.I.

I retired after working on Coast Guard icebreakers for over forty years and I was Commanding Officer for twenty three of those years.

My area of work was in eastern Canadian waters from Nova Scotia to the furthest north navigable waters including Newfoundland, the Arctic Islands channels and the St Lawrence system to Montreal including Northumberland Strait

I am Pro fix link but adamant Anti bridge.

I made my arguments for a fixed link to a similar panel at Souris P.E.I. in 1989. Most of the points I was at that time have been made many times since (to your panel) by other persons so I will not repeat them.

I do feel however that not enough emphasis is made on the needed employment opportunities that a fixed link would bring, and that too much is said on keeping the province as a Garden of Eden... Or a good place to come to.

Some people in cushy jobs, particularly in the education field, are pushing this point. They say that we should keep the Island slow and serene so that tourist can enjoy it more. Others say that we should keep it as a place, convenient for convention centres. They show no concern for our younger population who are forced, after being trained, to migrate elsewhere for their livelyhood because of a gloomy depressing outlook in their home province.

There are many, many reasons how a fixed link would improve our economy. They have been voiced many times in this review and others. I will not expand further.

I dont feel that a bridge should be built across Northumberland Strait. I know that it is possible to build pillars to

../3

withstand the ice pressure - but what enormous giants they will have to be.

If a bridge is built and if it lasts its predicted life span, please keep in mind, when you make your decision, what will happen when the bridge is no longer usable.

I look at the pillers of a bridge that was built across Charlottetown Harbour ninety four years ago and abandoned in the 1950s and see great stone pillers stepping across the water, now only suitable for nesting sea birds.

Let us now project ahead seventy or eighty years and visualize huge cement pillers stepping across the strait less than 200 meters apart. We can see that this would not only be an eye-sore but also a menace to navigation... stopping it completely during the ice season, particularly when some of the pillers are broken off to stumps just below the water surface.

Please dont allow such a mistake. Dont will such a monstrosity on our decendents.

../4

If we have a fixed link, it must be a tunnel. I realize that there are many problems to overcome to build a tunnel. The Dutch are having theirs, as they were under the English Channel. The Japanese, in digging their long tunnel did not find these problems insurmountable.

I feel that the tunnel should be "drive through" - not "rail". I know that a venting system would be needed and ~~[illegible]~~ in my opinion, if venting cannot be done solely from each end, and by line pillars or islands could be dumped in the strait with access to the tunnels. The pillars would house the ventilation machinery.

I understand that there is a land fill disposal problem in the English tunnel dig. Here, on P.E.I. we are badly in need of land fill for building our roads. Sandstone shale is ideal for road construction. The digging from the tunnel could meet the needs of our roads program and hopefully for many years to come.

A tunnel would be much safer for driving ... never any fogs.

delays because of weather, as would a bridge be. Road salt would not be necessary. It would cause corrosion on a bridge. A tunnel would not hurt the environment or disrupt the fishing, as would a bridge.

I ask that if we cannot go the tunnel route at this time because of the lack of engineering knowledge, that we defer building a fixed link until later when we can draw from experiences of other nations.

I dont think that the cost of such a project should be a hinderance at this time. It is intended that the Federal Government is to supply the funding or loan, to be recovered from tolls etc. We know that it (the govt) handed out 1.2 billion dollars to the Northern Bank and the Commercial Bank in 1988 (most of it went to pay off the California Bank). Surely, if it can pay out so much ~~to~~ ~~be~~ money to bail out two banks, it can help build a fixed link to Island province for about the same cost.

Robert E Doucette
3 Kenlea Dr
Sherwood P.E.I.
C1A 6V3

902-892-2998

THE FIXED/LINK DEBATE

Henry D Compton

Mr. Chairman , Member's of the panel Ladies and Gentleman. I am very pleased to have this opportunity to express my view on a fixed link.

I am a potato farmer, a P.E.Islander and a Canadian. I am proud to be a Canadian. In 1985 my family and I drove across Canada, and one can't help but be proud to belong to this great land.

I am proud to be a P.E. Islander, but I have concerns about our Province. I feel that Islanders have become to dependent on Social programs, both Federally and Provincial. I feel that most every Islander would be pleased to have permanent employment and be self-supporting.

P.E.I. has many resourses which need to be promoted. I feel as Islanders we should promote every avenue of Industry possible to make our Island more productive. and I know of no better way to promote all Industries on P.E.I. than to provide PRINCE EDWARD ISLAND WITH A FIXED LINK....... One of our major problems on P.E.I. is transportation and I believe this would be a major step in reducing this problem.

I am also pleased to be a POTATO FARMER, and I can tell you a fixed link would certainly be a great BENEFIT to our INDUSTRY. MyBrother's and I grow and package approximately 500 acres of potatoes. We employ about 15 persons for an 8 month period grading and packing.

When my Brother's and I started farming with our father about 25 year's ago, thing's were quite different. If you wanted to ship a load of Potatoes to UPPER CANADA, first you would order a Rail Car. Maybe it would be delivered to the Rail Station on Thursday then on Friday we might load it with Potatoes 730 - 75 lb jute bags. The train would pick it up on Monday and it would ARRIVE in TORONTO 6 - 10 days later. TODAY WE SHIP AN AVERAGE OF 2 TRACTOR-TRAILERS LOADS PER DAY in a great variety of packages, boxes of counts-poly bags-paper bags-and poly bags packed in boxes. Now we get order's asking for delivery in 48 hours or less. If your customer wants the load in on Monday morning --THAT is when they want it--NOT MONDAY AFTERNOON OR TUESDAY.

If you could hear some of the problems these Truck drivers have in getting accross on the FERRIES and trying to meet a deadline.
If they arrive at Cape Tormentine in the early A.M. only to find the 6:30 boat loaded then they have to wait for the 8:45 boat arrive on the Island at 9:45 get disenfected at Bordon drive to the East end of the Island get loaded and head back hoping to get off the Island the same day.
WHAT IT MEANS IT TAKES AS LONG TO GET ACCROSS TO P.E.I. AND GET BACK AS IT TAKES TO DRIVE TO TORONTO FROM CAPE TORMENTINE.
We have been told by many drivers if they could load on the mainland they would rather not come to P.E.I.
I think of one Driver from FLORIDA picking up a load of seed, I asked if he had ever been here before, NO he said and never again.
If we had a FIXED Link rates might not be much cheaper, but service would be much better, and we could be more competitive in UPPER CANADA and the U.S. Markets.

In speaking with a representative of the local Fish Packers he suggested they were experiencing similar problems in their industry, and they would certainly support a fixed link providing it had ~~no~~ little environmental impact on the Fish Stocks.

TOURISM
I feel the people to benefit most from a fixed link would be those involved in the tourist trade.
Altho the North Shore and Central part of P.E.I. enjoy a great deal of prosperity from the tourist trade, we in the Eastern end of the Province have much to offer in this resource that has not been utilized, and I feel if tourists could get on the Island when they want to without waiting in a line-up then more of them might come to King's County and if they still want a boat ride they could leave by Wood Islands.
There is room for growth in this industry and I believe we should encourage more visitors to this end of our beautiful Island.

I believe we must take a much broader view of this great challenge and think, not only the immediate problems, but of the benefits to generations to come.
I respect the positions of the employees of C.N.Marine who's job's are threatened, and that when fixed link is completed employment would be provided for those who have not retired.

I am convinced that the employment created by industries encouraged to come here and by improving our present industries.
This would far out weigh any job loses we would experience in the short term.

Ladies and Gentlemen this may be a one time offer in our lifetime. Let us not turn down the opportunity to look at it further.
BUT LET US VOTE YES...

ENVIRONMENTAL ASSESSMENT PANEL
REVIEWING THE
NORTHUMBERLAND STRAIT CROSSING PROJECT

COMPILATION OF SUBMISSIONS RECEIVED DURING AND AFTER FINAL PUBLIC HEARINGS HELD TO DISCUSS THE NORTHUMBERLAND STRAIT CROSSING PROJECT

ADDENDUM TO VOLUMES 1-3

JUNE 1990

ADDENDUM

TABLE OF CONTENTS

COMPILATION OF SUBMISSIONS RECEIVED DURING AND AFTER FINAL PUBLIC HEARINGS HELD TO DISCUSS THE NORTHUMBERLAND STRAIT CROSSING PROJECT

1. Municipality of Pictou County, Ed MacMaster, 6 pages
2. Elaine Harrison, 11 pages
3. Jean Leigh, 1 page
4. Local 127 of the Canadian Brotherhood of Railway Transport and General Workers, Gerard Sexton, 12 pages
5. Therese D'Amour, 5 pages
6. Frank J. Storey, 2 pages
7. Natural History Society of Prince Edward Island, Dan McAskill, 2 pages
8. Gethin Edward, 4 pages
9. Kay Wood, 6 pages
10. Linkletter Farms, Mark Linkletter, 4 pages
11. Greater Summerside Chamber of Commerce, 14 pages

Presentation to members of the panel of the Environmental Assessment Hearing (supplement to the Bridge Concept Assessment) at Pictou March 13, by Edward MacMaster, Councillor of the Municipality of Pictou County, for the Municipality of Pictou County.

Mr. Chairman, members of the panel, members of the press, Ladies and Gentlemen. I would like to congratulate the panel members in their quest for the truth in the supplement to the Bridge Concept, December 15, 1989. It seems that you have pursued all the questions and concerns brought out in previous hearings and have done your best to obtain answers to these important issues. My presentation will deal with the answers provided by the department and concerns that I feel bear further study. But first, I would like to tell a story which might indicate how fragile and fine tuned life is. At the provincial wildlife park attempts were being made to raise wood ducks in captivity. For some time the staff had been collecting eggs from wild nests and incubating them. Although the ducklings hatched, they soon died for unexplained reasons. Wood ducks nest in hollow trees some distance above the ground or water occupying old wood-pecker or racoon dwellings. Sometime after hatching, the mother indicates to the young that it is time to leave the nest to feed in nearby water ways. The downy young must free fall to the earth below mindless of the distance. This drop and impact triggers their ongoing survival. Without it they die in the nest, probably as natures way of eliminating unnecessary suffering.

Once wildlife park staff began dropping the ducklings from a height at the appropriate time survival was insured. So what I am saying is, when D.P.W. provides answers to questions using the words probable, in significant, of no consequence etc., you have to assume that given the unknown factors that they are probably going to be fifty percent wrong. However the natural consequence of being wrong may be beyond mans ability to rectify this case.

QUESTION A-1 Page 3 Deals with the Impact on Marine Life

Their answers to your questions in this section deal with a past climatic history of the strait and related fish landings. The problem with this is that if ice jams behind the bridge, ice patterns will change. Ice that blocks the strait in mid-December comes from the west. A change of ice "in" time will increase erosion problems in the eastern strait.

The headland erosion is now one foot per year in many cases. There will be increased turbulence due to early winter storms and resulting high tides. What impact this will have on strait biota cannot be taken lightly. They therefore cannot accurately project anything based on past climatic records, simply because you have not had a structure in place. I hope the panel will not put too much credence in the answers to Question A-1 brought forth by the Department.

QUESTION A-2 Impact on Marine Animal & Habitat

Here again the answers brought forward is that there will be insignificant damage to marine biota. I can certainly draw your attention to the construction of the causeway across Pictou Harbour. It was projected by government at that time that the creation of the fresh water lake behind the causeway would result in a wonderful recreation area. Stocked with trout and salmon the lake would also be a supply of fresh water for the Town of Pictou. We know the exact opposite happened. As the water stopped and changed from salt to fresh, a virtual Pandora's box erupted. Gnats became so plentiful that they plugged the radiators of cars on the causeway and on the nearby roadways around the lake. The water temperature increased killing of native fish species. Sediment continues to make the basin more shallow each year. During the past few years the flood gates have been opened allowing salt water back into the lake in hopes that it will regain some of its natural ability to be environmentally stable.

The point I am trying to make is that government biologists can often be wrong. The panel should not depend on their projections that the bridge will not impact on such thing as the gyres. As I understand from the answers, they do not even know where the gyres are, their rotation etc, yet they predict tidal speed increases and negative effect on gyres.

QUESTION A-3 Page 4 Species Migration Concerns

Their statement that the Canso Causeway blocked access to the strait by mackeral and other species says a lot. The lobster fishery on Chebucto Bay and Eastern Shore continues to decline. Haddock has declined in the Northumberland Strait. Could this be the result of lost migration routes? Lobster fisherman believe that lobsters migrate in an easterly direction which may take several years. They watch for falling catches to the west of Pictou County in order to predict decreased landings in this area during a ten year cycle.

Do we know that there will be no migration routes lost or interfered with either during construction of the structure or after completion? Do we know the long term result of this loss?

QUESTION A-4 Page 4 Commercial Value Concerns

This would be an almost impossible question to answer. The department would have appeared to have some unbiased wisdom if they left some of the answers alone. Who would have predicted that herring spawn would now become so valuable. Fifty years ago no one would say that smelts would become relatively worthless.

The fisherman must have a viable market, without that, the existence or no existence of a species has no commercial consequence. However the destruction of a species or its related habitant is economic suicide. A one week delay in ice-out may increase lobster catches 11.3%. We must remember, that is for that particular year. The long term may be relative to the resulting micro-climate created by ice delays.

QUESTION A-5 As built works

In regard to as built works, we know this is a concern. Who can make a decision on this as we have not seen submarine topographical descriptions, sediment depths, etc. There is the possibility that the structure will create more than a 10% restriction of the strait. The placement of armour stone around piers may cover a much larger area than anticipated. Due to the height of the piers the depth of the water, armour placement will look like the pyramids. The toe of the armour will be in my estimation, almost to the toe of the armour in the next pier in some cases. How they intend to maintain 10% restriction or less is beyond me.

QUESTION A-8 Ecosystem Model To Explore Possible Synergistic Effects

I suggest that biologists could go to any existing structure - (E.G.) the causeway here for example, and find if they are opened minded habitat destruction and alteration.

QUESTION E-1 Page 6 High Level Bridge Effect On Birds

I can certainly attest to the fact that the Pictou Causeway if it may be considered an ecosystem model, destroys a lot of birds. The water birds that fly over the area during migratory feeding are extremely vulnerable. Thus the conclusion that mortality will be light is not factual and should be disregarded by the panel.

QUESTION F-1 Page 7 Worst Plausible Spills

No one can accurately project spill scenarios. The panel should assume that we cannot afford to have any spills. The panel should also assume that the structure will be more susceptible to the spills. The ferries may contain spills. As well existing wharf structures could be upgraded to contain spills.

QUESTION I-1 Page 7 Physical Interference With Commercial Fishing

The exclusion zone will force fishing gear in an easterly and westerly direction away from the site thus increasing competition for available grounds over a wide portion of the strait.

QUESTION K-1 A-G Page 8 Commitment to Development Strategy for Affected Areas

There is certainly no dialogue being conducted to indicate what these strategies might provide or what they may lack. As a member of Municipal Council I would like to see these contingencies firmly in place, entrenched in legislation. Employment reductions at Northumberland Ferries Ltd., Pictou Industries, and related supply firms, tourist industry, etc. on mainland Nova Scotia have not been adequately addressed. How can we agree to something we have not seen or has not been presented to the respective jurisdictions. This at a time of great concern for families, for fishermen, for shipyard workers, for municipalities.

I am not satisfied with the Fisheries Compensation Committee structure. It is too lopsided and should be equally balanced between the fishermen and their peers and the proponent. What are two government departments doing on that Committee? As I understand it, 10 million set aside for fishery damages. Well this is not very much. But isn't it a private matter between the developer and the fishermen?

There are a great many concerns not answered by "The Supplement to the Bridge Concept". Statements contained herein are misrepresentations of known facts. Question P-1 P-2 Page 11. Environmental and Social Economic Affects

Answers in this question are projected on the basis that the bridge will cost 750 million. This is a serious and misleading statement. It should be immediately known that the MacKinac Strait Bridge cost $100,000,000 U.S. in 1958. This bridge could be considered a model in some respects, except that it is 4 miles shorter. Where than did they find this terribly misleading price tag of 750 Million.

They continue on with statements that indicate global warming may off set lower temperature involved in a micro climate situation. Global warming means an average increase in temperature over the whole surface of the planet. No one can predict that this would off set conditions, in fact, prevailing wind changes could decrease the mean temperature here over the next 50 years whether the structure is in place or not.

So there are a great many concerns still not answered. They are all extremely serious. They will have far reaching affects on our lives, our natural resources, our well being for centuries.

On behalf of the Municipality of Pictou County I would like to thank you for your audience. I pray that your decisions will be the right ones.

Yours sincerely,

Edward MacMaster

Municipality of Pictou County

Nova Scotia

THE FIXED LINK - AN ISLAND NIGHTMARE

In the beginning was the word
the word of the god of Big Business
the multinationals   banks
privatization foreign investment
and the rich

And the god of Big Business said -
    Let there be a mighty high bridge
    I3 kilometres long over the
    waters of Northumberland Strait
    to that small island set like a
    precious jewel in a blue sea

    And let us take away from the
    Islanders their ferries
    the jobs of the ferry workers
    the town of Borden and the fisheries

    Then shall Big Business
    rule their land and sea
    and much gold will come
    into our pockets from
    this crossing of the strait

And his big friends on the
big hill said -
Let studies go ahead
for the mighty big bridge aand
we shall follow in the footsteps of
Thatcher and Reagan and
privatize everything for
our Big Business friends

From the people we shall take
their ferries their trains
their post offices their
air service their Petro Canada
the subsidies to farmers and
fishermen and we shall weaken
their unemployment insurance
the unions the C B C
their health care and universities
and then Big Business and the power élite
shall rule over the people
So let the mighty bridge be studied
and when it is built the hordes
from the mainland the U S A Japan
and Hong Kong will run over the bridge
and buy up the Island with
their bags of gold

And the federal Department of Public Works
smiled at the words of Big Business and their friends
and set the wheels spinning with
computer inputs and outputs
with xeroxing and fax machines
sending words in all directions
about the mighty big bridge

They called in their friends from
the universities and the business world
the experts and consultants and
hired them to do studies and reports
costing millions of dollars to
convince the Islanders that the
mighty big bridge over the strait
was a good thing for the Island

Even though the bridge might destroy
valuable lobster and scallop beds
destroy the habitats of fish and birds
turn Borden into a ghost town and
take away the jobs of the ferry workers
and be an environmental disaster

Still the experts and consultants with
their graphs numbers statistics and
percentages said the bridge was a good thing

They turn out reports by the
thousands to tell the people
that Big Business and their experts
are really smarter than the Islanders and
that their language is the only way
to talk about the big bridge

They dress up ideas in gobbledegook
and the Newspeak of Orwell's I984
and they print~~s~~ sheets of
Strait Facts STRAIT

Examples of their words -
"that the ferry system was not
scrutinized and evaluated using
the risk scoping methodology to
identify high risk interactions
with the environment "

ECARS (selected environmental
components at risk)

They assess three elements
multiply them together to give
values between I and IOO

Now after this kind of jargon listen to
an Indian Chief talking about nature -

"Behold, my brothers, the spring has come.
The Earth has received the embraces
of the sun. Every seed is awakened and
so has all animal life. It is through
this mysterious power that we too have
our being and try to live in harmony
with nature."

and this by an Indian Chief from Alberta--

> "Did you know that trees talk? Well, they do. They talk to each other and they'll talk to you if you listen. Trouble is white people don't listen. They never learned to listen to the Indians so I don't suppose they'll listen to other voices in nature. But I have learned a lot from trees. Sometimes about the weather, sometimes about animals, and sometimes about the Great Spirit."

Fresh winds are blowing in from the woods and from the sea in those words by the Indians--words so different from the numbers, percentages and computer language of the experts.

And at hearings held on the Island farmers,
fishermen, ferry-workers and others speak
out loud and clear with a strong love and
passion for this Island which Jacques Cartier
called the fairest land of all
low and beautiful with tall pines
and spruces reaching to the blue sky.

And Islanders drive to hearings
all over the Island through
muddy roads in spring through
potholes and broken pavement
or through winter blizzards to
get stuck in ditches and snowbanks.

They leave the supper dishes unwashed
take the kids to a neighbor to babysit them
for it's Participatory Democracy time
on the Island and they've got to get in their say
about the fixed link.

One man said -

> Why, what about those 30 ships that got
> stuck in the deep Gulf ice this winter?
> That ice would break down any bridge.
> I wouldn't want to be on the central span
> of the bridge on a cold windy day about five
> storeys high over the strait and a 60-80 km wind
> blowing from the nor-east. Give me a warm seat
> in the ferry.

watching our strong icebreaker go through the ice in all kinds of weather. No, sir, no slippery dangerous bridge for me.

And this from a farmer -

> And what if the spring break up was late and the ice piled up at the bridge and our growing season was shortened by 2 weeks?

And this from another -

> Our lovely Island would be overrun by tourists land prices and taxes would go up and we Islanders would have to sell out and leave and let the rich and Big Business take over.

Listen to the farmers, the fishermen and the ferryworkers of the Island. They know more about the Island than some ~~the~~ experts and consultants with their computers and degrees.

And this from a ferry worker-

> And what do you think a ferry worker will do? Move to Ontario with his family and be uprooted from the Island? Or would he build a prefab lighthouse on the beach at Borden, set up tables and serve tea and sandwiches to the tourists in summer, sell models of the ferries for souvenirs or in the winter show them how to jump ice cakes in the empty harbor?

Another Islander asked the panel this -
"How many experts and consultants live
on the Island and know the conditions
here in the winter?

Last year in the spring break up
with the powerful rafting of the ice an iceberg
about 20 feet high moved up ~~the~~ to the top
of the cliff at Seacow Head and perched
there for weeks."

But the experts thought this language was
too unscientific and they returned
to their computers on the mainland and
spewed out more reports about the fixed link
--the terrestrial and marine environment
--the non-project phenomena
--convergent littoral transport of sand
--the integration of public concerns
into risk scoping and how the cumulative
effect assessment addresses the multiple
sources of environmental deterioration—
words, words, words, about our blue
waters, sandy beaches, fish, birds,
animals and the people of this Island
computerized in Nospeak

All over the world
people are beginning to
realize the crisis
facing life on this earth

Dr. David Suzuki said in
A _Matter of Survival_ and
The Nature of Things that
we have about ten years to
clean up pollution on
land, sea and air, that
we must learn to live
in harmony with nature and
not beat it into submission
and destroy it in our greed
for power and mastery over
all things on this earth,
for in destroying[illegible]-- nature
we destroy ourselves and
our only home planet Earth.

Technology has gone far enough
and now we must do an about turn
and walk gently on this earth .

There is a wonderful balance
in nature fragile and beautiful
an interpendence of all living things.

Nature is now fighting back
against man's destructive power
fighting for its very life and ours.

To even think of the tremendous
upheaval in nature that would come
about with the building of
a bridge over the strait
is sheer madness the results
would be castastrophic.

Epilogue-

One night when the spruce trees on the shore
were bending in the wind and the
moon was riding through the scudding clouds
a light was seen out in the strait and
a cry went up - "Look it's the Burning Ship
of Northumberland Strait"
and dark figures were seen running up and down
the deck and then the ship was gone heading for
the Seacow Head Lighthouse and the cliffs.

But next day early in the morning
there on the red cliffs were scattered
piles and piles of charred sheets of paper
millions of sheets washed in by the ~~brae~~ tide
and on one sheet was printed this-
STRAIT FACTS-- Public Works Canada
New Studies Point to Positive Impact

And that was all that was left of thousands
of studies and reports of the fixed link by
experts and consultants.

And the Island was left alone with its ferries sailing
left alone to dream away in the gulf of summer days with
white waves washing sandy beaches and peace and
contentment under blue skies and NO FIXED LINK
NO EXPERTS OR CONSULTANTS to spoil it all.

Elaine Harrison
March 12, 1990

'FROM AWAY' AND DISEASE CONTROL by JEAN LEIGH

'FROM AWAY' Tourism 2nd Industry

Told of DIFFERENCE - AN ISLAND - Ferry

red soil, clean sea + AIR

Lived up to publicity - island [illegible]

RAT RACE + PRESSURE - tourists unwound on the ferry [illegible]

TAKE PHOTOS of boats approaching Island + lighthouse headlands

START of HOLIDAY - FIRST IMPRESSIONS

Lived up to Expectations - a slower pace - REAL HOLIDAY

An ISLAND means DIFFERENT IDEAS,
" LAWS
" MANNERS + CUSTOMS
" ARCHITECTURE

'MOAT' DEFENCE AGAINST DISEASES for HUMANS, PLANTS + ANIMALS

PESTS

WANTED CRIMINALS

DRUGS

RATS bring disease + go where there is construction building + waste materials.
+ COCKROACHES

On ferry boat can be captured + destroyed - but 'landrats' can cross under a bridge!

'CONTROL' at Ports of entry easier as time taken by ferry can give time to 'Police' to take action

BETTER SERVICE = MORE FERRIES - RUN BY CANADIAN G'MENT NOT ONLY MOTIVE IS PROFIT <——> PRIVATE ENTERPRISE

BRIEF PRESENTED TO

THE

ENVIRONMENTAL ASSESSMENT REVIEW PANEL.

SUBMITTED BY

THE CANADIAN BROTHERHOOD OF RAILWAY TRANSPORT

AND

GENERAL WORKERS.

THE BRIEF IS A RESPONSE TO THE PANEL IN IT'S FINAL

HEARINGS ON A FIXED LINK

BRIEF PRESENTED AT THE BORDEN ELEMENTARY SCHOOL ON

WEDNESDAY, MARCH 21,1990.

MR. CHAIRMAN AND OTHER MEMBERS OF THE PANEL PLEASE ACCEPT MY THANKS AND TRUE APPRECIATION FOR YOU TO PERMIT ME ONCE AGAIN TO MAKE A PRESENTATION TO YOU ON BEHALF ON THE CANADIAN BROTHERHOOD OF RAILWAY TRANSPORT and GENERAL WORKERS, ON THE ISSUE OF THE PROPOSED FIXED LINK BETWEEN PRINCE E. ISLAND and NEW BRUNSWICK.

I TRULY APPRECIATE THE TIME BECAUSE I HAVE PRESENTED MANY BRIEFS ON THIS SUBJECT AND PROBABLY HAVE ATTENDED MORE MEETINGS THAN ANY SINGLE ISLANDER AND PUBLIC WORKS CANADA WOULD PROBABLY BE THE FIRST TO AGREE. I DO NOT HOWEVER HAVE ANY APOLOGIES TO MAKE BECAUSE I BELIEVE THIS SUBJECT OF A FIXED LINK TO BE THE SINGLE MOST IMPORTANT ISSUE TO EVER FACE THE PEOPLE OF PRINCE EDWARD ISLAND. I ALSO BELIEVE THAT IF THIS PROJECT IS PERMITTED TO PROCEED IT WOULD ALSO BECOME THE SINGLE WORST DECISION THAT WAS EVER MADE BY ISLANDERS and IN FACT WOULD BE A DECISION OF GREAT MONUMENTAL STUPIDITY.

I WILL ATTEMPT LATER ON DURING THE BRIEF TO EXPLAIN TO YOU THE MEMBERS OF THE PANEL WHY I HAPPEN TO THINK THIS WAY. SOME PEOPLE WILL BE QUICK TO RESPOND BY STATING THAT I AND THE UNION I HAPPEN TO REPRESENT ARE SOLELY INTERESTED IN PROTECTING JOBS.

MR CHAIRMAN NOTHING COULD BE FURTHER FROM THE TRUTH, YES WE ARE CONCERNED ABOUT THE WORKERS WE REPRESENT AND YES WE ARE CONCERNED ABOUT THE LOSS OF SOME TWENTY MILLION DOLLARS TO THE ECONOMY OF THIS PROVINCE, WE WOULD BE SOMEWHAT NIEVE NOT TO BE CONCERNED.BUT, MR. CHAIRMAN WE ARE ALSO CONCERNED ABOUT MANY OTHER ASPECTS OF THIS FIXED LINK AND THE WAY IN WHICH THE FIXED LINK HAS BEEN PROMOTED AND WHO IS PROMOTING IT? WE ARE CONCERNED ABOUT OUR ENVIRONMENT, HOW IT, THE FIXED LINK COULD EFFECT THE FISHERY,GROUND WATER, THE AGRICULTURE INDUSTRY, THE HIGHWAY SYSTEM, THE SOCIAL IMPACTS AND THE ISLAND WAY OF LIFE ETC. WE SHOULD NOT HAVE TO MAKE ANY APOLOGIES TO ANYONE FOR BEING CONCERNED ABOUT THESE MATTERS AND WE WILL NOT BE MAKING ANY APOLOGIES.

WE AS THE RESIDENTS OF BORDEN AND AS WORKERS FOR MARINE ATLANTIC

ARE PROUD OF OUR HISTORY AND WE ARE PROUD OF OUR COMMUNITY AND WE AS A COMMUNITY, THE COMMUNITY OF BORDEN AND SURROUNDING AREA WILL BE AFFECTED MORE SO THAN ANY OTHER LOCATION ON THIS ISLAND. AS SUCH WE HAVE A RIGHT TO BE CONCERNED AND WE HAVE A RIGHT TO HAVE THESE CONCERNS ADDRESSED. THESE CONCERNS HAVE NOT BEEN ADDRESSED AND UNTIL SUCH TIME AS THEY ARE WE STRONGLY SUGGEST THAT YOU THE MEMBERS OF THE PANEL HAVE NO OTHER CHOICE BUT TO KILL THE PROJECT. WE AS A COMMUNITY ARE SICK AND TIRED OF BEING TREATED LIKE SECOND CLASS CITIZENS WITHIN OUR OWN PROVINCE. IF THIS PROJECT WERE TAKING PLACE IN SOME OTHER COMMUNITY WITHIN THIS PROVINCE THEY WOULD BE RE-ACTING IN THE SAME WAY. IF THERE WERE SOME CHANCE THAT SAY FOR INSTANCE,THE TOWN OF MONTAQUE WAS GOING TO LOSE THEIR GROUND WATER, WOULD THEY BE CONCERNED? OF COURSE THEY WOULD BE CONCERNED? I COULD GIVE MANY OTHER EXAMPLES BUT THE POINT HAS TO BE MADE THAT THIS LAND IS YOUR LAND AND THIS LAND IS MINE LAND, AS SUCH IT IS NOT JUST THE LAND OF THE TRUCKERS AND PRIVATE DEVELOPERS, and NO MEGA PROJECT SHOULD SIMPLY PROCEED BECAUSE OF CONVENIANCE AND THE URGE TO MAKE A FAST BUCK. IT SHOULD BE NOTED BY THE PANEL MEMBERS THAT THE SO CALLED PROMOTERS HAVE ALWAYS MAINTAINED FROM THE BEGINNING THAT THE STUDIES WERE ADEQUATE AND THAT THE PROJECT SHOULD PROCEED AS QUICKLY AS POSSIBLE.

WE WOULD NOW LIKE TO PROCEED WITH SOME OF THE MAJOR CONCERNS WE HAVE IF THE PROJECT IS TO PROCEED!

COMPENSATION TO FERRY WORKERS: IF THE PROJECT IS TO PROCEED WE AS A UNION INTEND TO PRESS FOR A COMPENSATION PACKAGE EQUAL TO NONE. WE ARE NOT PREPARED TO ACCEPT A COMPENSATION PACKAGE THAT DOES NOT ADEQUATELY LOOK AFTER OUR MEMBERS AND THEIR FAMILIES. WE ARE NOT SATISFIED WITH OUR PRESENT BENEFITS AS HAVE BEEN OUTLINED TO THE PANEL BY MARINE ATLANTIC. THE PROVISIONS OF THAT PLAN UNDER OUR INCOME SECURITY AGREEMENT FALL VERY SHORT OF OUR EXPECTATIONS AND SIMPLY PUT WE ARE LOOKING FOR COMPENSATION EQUAL TO OR BETTER THAN THOSE PROVIDED FOR VIA RAIL EMPLOYEES.. THE MENTION OF TRAINING BY THE COMPANY TO YOU THE PANEL

COMPENSATION TO FERRY WORKERS: MEMBERS SHOULD BE TAKEN WITH A GRIAIN OF SALT, HOW DO YOU TRAIN SOMEONE WHOSE JOB HAS JUST BEEN DONE AWAY WITH AND WHO IS FORTY-FIVE YEARS OF AGE? WE HAVE SEEN THESE PROMISES MADE BEFORE AND VERY LITTLE IS EVER ACCOMPLISHED WITH SUCH PROGRAMMES. WE HAVE TRYED TO IMPROVE THESE BENEFITS THROUGH THE NEGOTIATION PROCESS BUT THIS HAS FAILED. IN FACT AS WE SIT HERE BEFORE YOU OUR MEMBERS ARE VOTING FOR THE THIRD TIME ON A CONTRACT. ONE OF THE MAIN CONCERNS BEING EXPRESSED BY OUR MEMBERS IS THE FAILURE OF EVERYONE INVOLVED WITH THE FIXED LINK PROJECT TO REALIZE THE SERIOUS NATURE OF THE LOSS OF 637 JOBS AND THE IMPACT THAT WILL HAVE SOCIALLY, ECONOMICIALLY AND OF COURSE ENVIRONMENTALLY. IT IS VERY INTERESTING TO NOTE THROUGHOUT THE STUDIES THE MENTION FOR THE NEED OF GOOD PLANNING TO DEAL WITH THESE ISSUES AND YET HERE WE ARE FOUR YEARS LATER STILL TRYING TO GRIP WITH THE DECISION AS TO PROCEED OR NOT PROCEED AND YET NOT ONE SINGLE REPRESENTIVE OF THIS GOVERNMENT HAS SAT DOWN FOR EVEN FIVE MINUTES WITH THIS UNION TO DISCUSS THE ISSUE OF COMPENSATION TO FERRY WORKERS. THIS SITUATION MR. CHAIRMAN CAN BE TOLERATED FOR JUST SO LONG AND I CAN TELL YOU WITHOUT A DOUBT THAT OUR PATIENCE WITH REGARD TO THIS MATTER ARE WEARING THIN. IT IS TIME SOMEONE ADDRESSED THE MATTER, IT IS TIME SOMEONE REALIZED THAT THIS COST OF COMPENSATION TO FERRY WORKERS HAS GOT TO BE FIGURED INTO THE OVERALL COSTS OF THE FIXED LINK, AND I AM SUGGESTING TO YOU THAT IF THE FERRY WORKERS ARE TO BE PROPERLY COMPENSATED AND THE OTHER SOCIAL ECONOMIC & ENVIROMENTAL ISSUES ARE TO BE PROPERLY ADDRESSED THIS PROJECT BECOMES NO LONGER FEASIBLE. IS THAT WHY THE FEDERAL GOVERNMENT IS DRAGGING THEIR FEET ON THIS ISSUE OF COMPENSATION? DO YOU AS MEMBERS OF THIS PANEL REALIZE THAT UNDER THE TERMS OF OUR COLLECTIVE AGREEMENT THAT WE HAVE NO TRANSFER RIGHTS WITHIN THIS COMPANY AND THAT WE SIMPLY CANNOT LOSE A JOB IN BORDEN AND BE PLACED ON ANOTHER JOB SOMEWHERE ELSE WITHIN THIS COMPANY? DO YOU REALIZE THAT WE ALSO HAVE THE RIGHT TO REFUSE TO ACCEPT A JOB IN ANOTHER LOCATION? DO YOU REALIZE THAT A LOT OF THE PROPONENTS OF A FIXED LINK STATED IN PUBLIC DURING THE FIRST ROUND OF HEARINGS THAT THEY WOULD SUPPORT FERRY WORKERS IN THEIR EFFORTS TO OBTAIN ADEQUATE COMPENSATION? WHERE ARE THESE SO-CALLED SUPPORTERS NOW

COMPENSATION TO FERRY WORKERS: THAT WE ARE HAVING PROBLEMS TO GET THIS MATTER DISCUSSED WITH THE COMPANY AND THE FEDERAL GOVERNMENT? WHERE IS PREMIER GHIZ ON THIS ISSUE AFTER ALL IT WAS ONE OF THE CONDITIONS HE STAED WOULD HAVE TO BE ADDRESSED BEFORE HE COULD GIVE HIS APPROVAL TO THE PROJECT? TO SIMPLY SAY WE WILL DEAL WITH THE ISSUE AFTER APPROVAL IS GIVEN TO PROCEED IS NOT WHAT HE WAS INDICATING AT THE TIME THE CONDITIONS WERE LAID OUT! WE AS FERRY WORKERS EXPECT TO BE COMPENSATED AND WE EXPECT THE COMPENSATION TO BE GENEROUS, WE WILL SETTLE FOR NOTHING LESS AND WHATEVER IT TAKES TO GET THAT WE ARE PREPARED TO FIGHT FOR IT. THE MATTER CAN NO LONGER BE PLACED ON THE BACK BURNER AND BE ALLOWED TO SIMMER, IF IT DOES THE KETTLE WILL BOIL OVER.

WATER SHED STUDY: IT' HAS BEEN RECENTLY STATED THAT A WATER SHED STUDY WILL BE CARRIED OUT IN THIS AREA TO DETERMINE THE SUPPLY OF WATER IN THE EVENT THE PROJECT PROCEEDS AND THE POTATO PROCESSING PLANT IS CONSTRUCTED IN THIS AREA. WE CAN TELL YOU MR. CHAIRMAN THAT THIS MATTER CONCERNS US VERY MUCH, ANYTIME YOU TALK ABOUT THE POSSIBILITY OF A COMMUNITY LOSING IT'S WATER, EVEN THE POSSIBILITY, IT HAS TO BE TREATED AS A VERY, VERY, SERIOUS MATTER! WE AS RESIDENTS OF THIS COMMUNITY WANT A COMMITMENT NOW, NOT LATER, THAT IN THE EVENT THE GROUND WATER IS LOST IN THIS COMMUNITY OR THE SURROUNDING COMMUNITIES, OR IN THE EVENT THAT INDIVIDUAL HOUSEHOLDS LOSE THEIR WELL WATER AFTER EITHER OF THESE PROJECTS COMMENCE THAT THE BURDEN OF PROOF BE PLACED UPON THE SHOULDERS OF THE DEVELOPERS AND THAT THEY BE HELD RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH SUPPLYING THE COMMUNITIES WITH A SUITABLE WATER SYSTEM AND THAT NO COSTS WHATEVER BE FORCED UPON THE SHOULDERS OF THE TOWN OF BORDEN OR THE COMMUNITIES.IT WOULS SEEM TO US THAT SINCE THE WATER SHED STUDY IS BEING CARRIED OUT IN DIRECT RELATION, ONE PROJECT OR THE OTHER, OR BOTH, THAT THE PEOPLE ARE LEFT WONDERING WHAT IS GOING ON? YOU CAN ONLY WONDER SO LONG UNTIL THE TIME COMES THAT YOU REQUIRE ANSWERS AND DECISIONS, THAT TIME HAS COME MR. CHAIRMAN! WE WANT TO KNOW WHO IS GOING TO PAY FOR WHAT? I WANT TO REMIND THE PANEL THAT SOME TWENY-FIVE YEARS AGO WHEN THE IDEA OF A CAUSEWAY WAS KICKING AROUND, THERE WERE MANY PROMOTERS

WATER SHED STUDY: AROUND AT THAT TIME, THANK GOD THAT PROJECT DIED A SLOW DEATH, AS WE ALL KNOW TODAY IT WOULD HAVE BEEN AN ENVIRONMENTAL DISASTER, NO ONE EVEN BOTHERS TO DISPUTE THAT FACT. THE POINT TO BE MADE MR. CHAIRMAN IS THAT AT THAT TIME A TEST WELL WAS DUG ON WHAT IS COMMONLY KNOWN IN THIS AREA AS READS SHORE. THE RESULTS WERE THAT MAY INDIVIDUAL HOUSEHOLD WELLS AT THAT TIME WENT DRY OR HAD TRACES OF SALT WATER IN THE WELL STREAM. THESE INDIVIDUALS HAD TO FOOT THE BILL, AND WE SAY ENOUGH IS ENOUGH. YOU CAN DO ALL THE SCIENTIFIC STUDIES YOU WISH, BUT YOU CANNOT BEAT HUMAN INSTINCT. THE MUNICIPALITY OR THE COMMUNITIES CANNOT AFFORD LARGE SCALE PROJECTS SUCH AS WATER WORKS AND THEREFORE THESE COSTS MUST BE DIRECTLY ASSOCIATED TO THE FIXED LINK. IF THE GROUND WATER IS LOST WHAT DO WE DO IN THE INTERIM PERIOD MR. CHAIRMAN? DO WE RELY ON SOMEONE TO DELIVER WATER TO EACH HOUSEHOLD? HOW DO MARINE ATLANTIC WORKERS WASH EACH DAY TO PREPARE TO GO TO WORK? THESE ARE ALL REAL AND POSSIBLE PROBLEMS THAT NEED TO BE ADDRESSED.

SOCIAL & ECONOMIC ASPECTS: MR. CHAIRMAN WE BELIEVE THAT A FIXED LINK IS IS SOCIALLY, ECONOMICALLY AND ENVIRONMENTALLY UNWISE AND THAT FURTHERMORE IT IS FUNDAMENTALLY WRONG AND WE ASK YOU TO BE VERY CONCIOUS OF THIS FACT IN ARRIVING AT ANY DECISION WITH REGARD TO THE FIXED LINK.AT THE VERY LEAST WE MOST CERTAINTLY THAT BEFORE ANY DECISION IS MADE TO PROCEED THAT ANOTHER PLEBISCITE BE HELD IF NECESSARY. WE BELIEVE HOWEVER THAT YOU SHOULD KILL THE PROJECT BECAUSE THE SOCIAL & ECONOMIC ASPECTS OF THE FIXED LINK STUDIES HAVE BEEN FAR TO VAGUE, TO MANY STUDIES HAVE BEEN DONE IN COMPLETE ISOLATION OF EACH OTHER LEAVING THE RAMIFICATIONS OF SUCH A PROJECT COMPLETELY SUSPECT. WE ARE VERY CONCERNED MR. CHAIRMAN THAT WE ARE NOT PREPARED, NOR IS THE FEDERAL GOVERNMENT PREPARED, TO DEAL WITH ALL THE PROBLEMS ASSOCIATED WITH THE CONSTRUCTION OF A FIXED LINK. THE BOOM/BUST AFFECT HAS NOT BEEN ADEQUATELY DEALTH WITH IN TERMS OF THE NEEDS FOR NEW SCHOOLS,HOUSING,RECREATIONAL FACILITIES,WATER AND SEWAGE FACILITIES,CHURCHES, AND AS ONE ARTICLE RECENTLY STATED BARS & LOUNGES FOR THE CONSTRUCTION WORKERS. WE CANNOT EVEN MR. CHAIRMAN DETERNINE THOSE NUMBERS ACCURATELY, BECAUSE WHEN PUBLIC

SOCIAL & ECONOMIC ASPECTS: WORKS CANADA SPEAKS OF THOSE NUMBERS THEY SPEAK WITH FORKED TONGUES DEPENDING ON WHETHER OR NOT THEY ARE ADDRESSING AN AUDIENCE IN NEW BRUNSWICK OR PRINCE E. ISLAND OR JUST WHEREVER. THIS PROJECT MR. CHAIRMAN IS A SNOWJOB, THAT IS BEING PROMOTED BY PUBLIC WORKS CANADA AT THE EXPENSE OF THE TAXPAYER, THEY PUBLIC WORKS ARE NOT ADDRESSING THESE SOCIAL AND ECONOMIC ISSUES NOR DO THEY INTEND TO, THEY SIMPLY ARE NOT PROVIDING ADEQUATE INFORMATION. THE MAIN THEME OF THE FEDERAL GOVERNMENT MR. CHAIRMAN IN THIS ISSUE IS SIMPLY TO RID ITSELF OF THE BURDEN OF THE SUBSIDY PAID TO MARINE ATLANTIC AND TO RID ITSELF OF THE SO-CALLED BURDEN OF PROVIDING TRANSPORTATION TO THIS PROVINCE.THIS ISSUE IS NO DIFFERENT THAN THE MOTIVES USED TO PROMOTE FREE TRADE, PRIVITIZATION OR DEREGULATION TO NAME BUT A FEW. WE FIRMLY BELIEVE THEY DO NOT INTEND TO ADEQUATELY DEAL WITH THE SOCIAL BEHAVORIAL PROBLEMS THAT WILL FOLLOW A FIXED LINK EITHER DURING OR AFTER THE CONSTRUCTION PERIOD AND THAT MR. CHAIRMAN IS A GRAVE CONCERN WHICH WE HAVE.IT IS VERY INTERESTING TO NOTE THAT WITH THE ANNOUNCED CLOSURE OF CANADIAN FORCES BASE - SUMMERSIDE THE CLERGY OF THAT COMMUNITY AS WELL AS OTHER COMMUNITY ORGANIZATIONS HAVE HAD TO RALLY AROUND THE PEOPLE BEING EFFECTED TO DEAL WITH THE SOCIAL AND BEHAVORIAL PROBLEMS BEING EXPERIENCED AS THE RESULT OF THAT CLOSURE AND THE EFFECTS ON THAT COMMUNITY. THERE HAS BEEN A LOT OF MEDIA ATTENION TO THE PROBLEM AND YET THE PROBLEMS OF FERRY WORKERS HAVE BEEN LEFT TO FESTER AND THERE IS NOWHERE ELSE TO PLACE THE BLAME EXCEPT DIRECTLY UPON THE SHOULDERS OF PUBLIC WORKS. IF MR. CHAIRMAN YOU LOOK AT HOW PUBLIC WORKS CANADA HAS SPENT MONEY IN PROMOTING THIS PROJECT YOU WILL SEE THEY HAVE SPENT A LOT IN TRAVEL, TAKING FISHERMAN AND TELEVISION CREWS TO EUROPE TO LOOK AT VARIOUS BRIDES, NONE OF WHICH COMPARE TO THIS PROPOSED PROJECT, AND YET HAVE NOT SPENT FIVE MINUTES OR FIVE CENTS TO DEAL WITH THE ALREADY SOCIAL IMPLICATIONS THAT HAVE RESULTED FROM THE DISCISSIONS ALONE? THIS QUESTIONS STRONGLY THE INTEGRITY OF PUBLIC WORKS CANADA IN THE WHOLE PROCESS OF THE FIXED LINK.THEY SIMPLY HAVE NOT DEMONSTRATED THEY ARE CAPABLE OF DEALING WITH THE SOCIAL ISSUES. THE ONLY AREA OF THE SOCIAL ASPECT THAT THEY HAVE COME TO GRIPS WITH IS THE

SOCIAL & ECONOMIC ASPECTS: SUGGESTION THAT THE CONSTRUCTION WORKERS BE PROVIDED ADEQUATE BARS AND LOUNGES, AND THEY EVEN DISPUTE WHICH TYPE OF SPIRITS SHOULD BE USED. WE WONDER MR. CHAIRMAN IF THEY WOULD CONSIDER SUCH ESTABLISHMENTS FOR US FERRY WORKERS AND IF THEY HAVE THE SAME CONCERNS ABOUT THE TYPE OF SPIRITS THAT MAY BE SUITABLE TO US. I WOULD SUGGEST THAT IF THE PROJECT PROCEEDS AND WE HAVE 637 FERRY WORKERS UNEMPLOYED YOU COULD KEEP THE CLUBS OPEN AND IT WILL NOT REALLY MATTER WHAT KIND OF SPIRITS ARE SERVED, MARINE WORKERS ARE KNOWN AS A HEARTY BUNCH. WHILE AT THE SAME TIME NO ONE HAS DISCUSSED WHO IS GOING TO PAY MORTGAGES AND FEED THE CHILDREN OF THOSE 637 UNEMPLOYED WORKERS.

MR. CHAIRMAN IT WOULD BE LESS THAN FAIR IF IN THIS BRIEF WE DID NOT MAKE SOME REFERENCE TO THE NUMBERS OF JOBS THAT ARE PREDICTED TO TAKE PLACE. IT IS MOST INTERESTING IF YOU REFER TO THE DPA STUDY OF AUGUST, 1987, Page 20 & 21. YOU WILL NOTE WITH REFERENCE TO THE NUMBER OF JOBS THAT WITH THE BRIDGE CONCEPT THEY SPEAK IN TERMS OF 800 WORKERS FROM THE LOCAL AREA MEANING AS WE PRESUME THE ATLANTIC PROVINCES, AND ON PAGE 61 OF THAT SAME STUDY THEY SUGGEST THAT PERHAPS 400 OF THOSE COULD BE FROM PRINCE E. ISLAND. WOULD THIS BE SUCH A GREAT ECONOMIC BOOM GIVEN THE FACT THAT SOME MAKE PREDICTIONS THAT THE BRIDGE COULD BE CONSTRUCTED IN THREE YEARS. IF YOU LOOK AT PAGE 21 YOU FIND THE PREDICTIONS WITH REGARD TO THE TUNNEL EVEN SMALLER WITH A LOCAL CONTENT OF 220 JOBS AND NON/LOCAL CONTENT OF 340 FOR A TOTAL OF 560, WOULD THIS CREATE SUCH AN ECONOMIC BOOM AS PUBLIC WORKS PREDICTS? IF YOU THEN TAKE INTO ACCOUNT THE TYPES OF MATERIALS AND WORKERS, MATERIALS BEING STEEL & CEMENT ONE HAS TO WONDER IF THE FIGURES ARE REALISTIC AND JUST HOW MANY NAILS & 2 x 4 WOULD BE USED? THE LOCAL CONTENT ACCORDING TO THIS SAME STUDY PAGE 61, WOULD Be 5% OF MATERIALS AND SERVICES. FURTHER IN THE SAME STUDY PAGE 62 IT STATES QUOTE: THE IMPACT OF THE BRIDGE CROSSING ARE SUMMARIZED IN EXHIBIT 7. THE DIRECT SPENDING OF 600 MILLION WOULD GENERATE TOTAL DIRECT, INDIRECT AND INDUCED GROSS DOMESTIC PRODUCT OF APPROXIMATELY 815 MILLION DOLLARS ACROSS CANADA, WHICH CAN ROUGHLY BE APPORTIONED

SOCIAL & ECONOMIC ASPECTS: AS FOLLOWS: 75 MILLION P.E.ISLAND, 177 MILLION IN N.B., 41 MILLION IN N.S, AND 523 MILLION IN THE REST OF CANADA, (PRIMARILY IN ONTARIO & QUEBEC). END OF QUOTE. GUESS WHAT WE NOW KNOW WHO THE BIG WINNERS ARE, ONTARIO & QUEBEC. OBVIOUSLY THE FORMER MINISTER STEWART MCINNES HOOD WINKED THE PEOPLE OF PRINCE E. ISLAND WHEN HE WAS QUOTED AT A MEETING IN MILL RIVER AT THE P.E.I. COUNCIL OF LABOR CONVENTION - QUOTE: THE PROJECT WOULD RESULT IN 7000 DIRECT JOBS FOR ISLANDERS, AND ANOTHER 13,000 JOBS IN SPIN-OFFS - END OF QUOTE. OBVIOUSLY MR. MCINNES DID NOT READ THE REPORT PREPARED FOR PUBLIC WORKS CANADA, NOT MUCH WONDER ISLANDERS ARE FICKLE ABOUT THE FIXED LINK. HOPEFULLY THE FIXED LINK ENDS UP AS FICKLED AND PICKLED AS DID MR. MCINNES!

MR. CHAIRMAN ONE OTHER POINT WE WOULD LIKE TO MAKE WITH REGARD TO THE FIXED LINK IS THAT WHILE THE TOURISM ASSOCIATION PROMOTES THE IDEA, PLEASE BEAR IN MIND THAT MANY INDIVIDUAL OPERATORS DO NOT.

ICE/CLIMATE/FISHERY: MR. CHAIRMAN IN DISCUSSING THIS ASPECT OF THE FIXED LINK I WANT TO BRING TO YOUR ATTENTION A MATTER WHICH WE FEEL MUST BE ADDRESSED, I RECOGNIZE THAT I HAVE ALREADY BROUGHT THE MATTER TO YOUR ATTENTION BUT I AM NOT SATISFIED THAT THE MATTER HAS BEEN PROPERLY ADDRESSED. THE MATTER I MAKE REFERENCE TO IS THE MENTION WITHIN THE VESSEL/BRIDGE/TRAFFIC STUDY AND THE LATEST STUDIES, WHEREIN REFERENCE IS MADE TO THE CLOSING OF THE NORTHUMBERLAND STRAIT FROM NOVEMBER TO APRIL OF EACH YEAR. IN OUR BRIEF PRESENTED TO YOU ON JAN 29,1990 WE TRY TO DEAL WITH THIS ISSUE. HOWEVER SINCE THAT TIME WE HAVE OBTAINED A COPY OF THE NAVIGABLE WATERS PROTECTION ACT R.S., c. 193, s.1. - MR. CHAIRMAN BEFORE MAKING ANY FINAL DECISION AS TO WHETHER OR NOT TO PROCEED WITH A FIXED LINK WE ASK YOU AND THE OTHER PANEL MEMBERS TO MAKE REFERENCE TO THIS ACT. AFTER HAVING EXAMINED IT OURSELVES WE HAVE COME TO THE CONCLUSION THAT YOU CANNOT CLOSE OFF THE NORTHUMBERLAND STRAIT TO SHIPPING AND IF YOU CAN YOU MUST MEET CERTAIN CRITERIA. WE DO NOT FEEL THE CRITERIA HAS BEEN MET AND WE ARE ALSO OF THE VIEW THAT

ICE/CLIMATE/FISHERY: THE FEDERAL MINISTER OF TRANSPORTATION MUST APPROVE OF THIS DECISION. CAN YOU MR. CHAIRMAN TELL US IF INDEED THE MINISTER IS PREPARED TO GIVE APPROVA? IF HE IS PREPARED TO GIVE APPROVAL CAN WE BE TOLD WHY AND HOW THIS DECISION WAS ARRIVED AT? WE FEEL THIS TO BE ONE OF THE MAIN CONCERNS THAT NEEDS TO BE ADDRESSED AND IT HAS A DIRECT EFFECT ON OUR FUTURE AND IT COULD VERY WELL, IF THE MATTER IS NOT ADDRESSED,CAUSE A MONUMENTAL DISASTER TO THE BRIDGE AND HAS THE POSSIBILITY TO BRING ABOUT AN ENVIRONMENTAL DISASTER EQUAL TO THAT EXPERIENCED IN BRITISH COLUMBIA BY THE TANKER M.V. EXON VALDEZ. SOME MAY SAY WE ARE ATTEMPTING TO USE SCARE TACTICS, BUT I SAY TO YOU MR. CHAIRMAN THAT UNLESS THIS MATTER IS RESOLVED THERE IS EVERY POSSIBILITY THAT THIS COULD HAPPEN. IF PUBLIC WORKS CANADA WANTS A BRIDGE SO BADLY THEN THEY SHOULD BE PREPARED TO GIVE US A FIRST CLASS STRUCTURE, ONE THAT WILL PERMIT WINTER NAVIGATION AND WILL HAVE MORE THAN TWO BRIDGE PIERS PROTECTED. IF THIS CANNOT BE ACCOMPLISHED THEN THE IDEA SHOULD BE SCRAPPED AND THE TUNNEL OPTION CONSIDERED INSTEAD. HOWEVER I REALIZE THIS WOULD BE AT THE TOTAL DISPLEASURE OF PUBLIC WORKS WHO HAVE BEEN PROMOTING A BRIDGE SINCE THE CONCEPT OF A FIXED LINK FIRST SURFACED.

THE IDEA OF A FIXED LINK BRIDGE CONCEPT NEVER CEASES TO AMAZE US AS MARINE WORKERS AND GIVEN THE CLIMATE WE LIVE IN. IT MUST BE NOTED THAT WE AS MARINE WORKERS DO NOT TELL THE FARMER HOW TO FARM, NOR DO WE TELL A FISHERMAN HOW TO FISH! HOWEVER IT HAS BEEN NOTED BY US THAT EVERY TIME WE ADDRESS THE QUESTION OF ICE AND ICE CONDITIONS, MANY ISLANDERS WHO FOR SOME REASON KNOW NOTHING ABOUT ICE ALL OF A SUDDEN SEEM TO BECOME EXPERTS. TO GIVE YOU AN EXAMPLE:- IF WE STATE THAT ICE WILL BE DELAYED IF A BRIDGE IS CONSTRUCTED OR IF WE SAY THIS DELAY WILL RESULT IN LOWER WATER TEMPERATURES THEY BECOME VERY SKEPTICAL! WHY, WE ASK OURSELVES, WE HAVE SAILED THE WATERS OF NORTHUMBERLAND STRAIT IN SOME CASES FOR FORTY YEARS, WE KNOW HOW TIDES/WIND/ICE RE-ACT, AND WE KNOW PROPER STUDIES HAVE NOT BEEN CARRIED OUT ON THE ICE THICKNESS. WE KNOW THE TREMENDOUS PRESSURES THAT CAN BE CREATED BY THESE ICE

ICE/CLIMATE/FISHERY: FLOES. AT THIS VERY PRESENT TIME WE HAVE ICE FLOES IN THE GULF OF ST. LAWRENCE THAT ARE IN THICKNESS EXCEEDING SIX FEET, THIS IS COMMONLY KNOWN AS GULF ICE AND IT IS NOT UNUSUAL FOR THIS "GULF ICE" TO COME THROUGH NORTHUMBERLAND STRAIT AND IF THERE HAPPENS TO BE A BRIDGE IN THE PATH OF THESE GIANT ICE FLOES THEN I AM AFRAID OF WHAT WILL HAPPEN TO THE BRIDGE, GIVEN THE COMBINED CONDITIONS OF TIDES/WINDS/ICE. AT A MEETING IN SOURIS, PRINCE E. ISLAND IT WAS STATED TO YOU THE PANEL MEMBERS BY A CAPTAIN FROM ONE OF THE D.OT. ICEBREAKERS THAT IN HIS VIEW UNDER HEAVY ICE CONDITIONS IT WOULD REQUIRE ONE OR TWO OF THESE ICE BREAKERS TO CONTINUALLY BE BREAKING ICE AROUND THE BRIDGE PIERS. THIS WAS A MASTER WITH MANY YEARS OF EXPERIENCE AND I HOPE YOU THE PANEL MEMBERS, WERE LISTENING.

IN SPEAKING OF THE BRIDGE CONCEPT WE ARE HIGHLY ANNOYED AT PUBLIC WORKS BECAUSE OF THE FACT THAT NO CONCRETE PLAN OF THE BRIDGE STRUCTURE CAN BE VIEWED EVEN AT THIS LATE DATE AND TIME IN THIS PROCESS. ARE WE SUPPOSED TO MAKE THE DECISION AND LOOK AT THE PROPOSED STRUCTURE AFTER IT IS COMPLETED? CAN WE NOT BE PROVIDED WITH AN EXACT MODEL, IF NOT WHY NOT? HOW MANY FEET WILL THIS STRUCTURE BE FROM THE WATER, NOT METERS FEET, SOMETHING WE CAN ALL UNDERSTAND AS LAY PEOPLE! HOW MANY BRIDGE PIERS WILL ACTUALLY BE PLACED IN THE WATER AND AGAIN HOW FAR APART IN FEET? I ACTUALLY BELIEVE THIS WAS INTENDED TO CONFUSE THE PEOPLE OF PRINCE E. ISLAND. WE NEED TO BE ABLE TO VISUALIZE THE PROJECT IN ORDER TO MAKE ANY KIND OF AN INFORMED DECISION. IT HAS BECOME ABUNDANTLY CLEAR MR. CHAIRMAN THAT THE MORE WE KNOW AND LEARN AND THE MORE INFORMED WE BECOME THE LESS ATTRACTIVE BECOMES THE FIXED LINK.FOR MR. FELTHAM IN YESTERDAYS NEWS COVERAGE TO SUGGEST THAT A SHIP COULD BE BROUGHT INTO SERVICE WITHIN TWO DAYS JUST GOES TO SHOW HOW LITTLE HE KNOWS OF WHAT HE SPEAKS! DOES HE NOT REALIZE THAT SHIPS CREWS ARE FOR THE MOST PART LICENSED AND THAT FOR LIFE SAVING PURPOSES THIS IS A REQUIREMENT OF LAW. DOES HE BELIEVE SHIPS CREWS ARE GOING TO WAIT AROUND FOR A VESSEL TO RAM THE BRIDGE AND A DISASTER TO TAKE PLACE? DOES HE REALLY THINK THAT WE THINK THAT THE DOCKS IN BORDEN WILL BE MAINTAINED? DOES HE REALLY BELIEVE THAT WE

ICE/CLIMATE/FISHERY: BELIEVE ANY CONSERVATIVE MEMBER OF THE PRESENT DAY FEDERAL GOVERNMENT?

IMPROVED FERRY SERVICE: WE BELIEVE MR. CHAIRMAN THAT IMPROVED FERRY SERVICE IS THE SAFEST AND BEST WAY TO PROCEED. WE BELIEVE ANOTHER PLEBICITE SHOULD BE CALLED AND THE PEOPLE SHOULD BE GIVEN AN OPTION AS TO WHAT THEY WANT! IN THE LAST PLEBICITE THEY WERE LED TO BELIEVE THEY WOULD HAVE AN OPTION. EVERYONE KNOWS WE AS ISLANDERS WERE HOOD WINKED INTO BELIEVING WE WOULD HAVE A CHOICE AND AGAIN PUBLIC WORKS HAS TO ACCEPT THE RESPONSABILITY.

MARINE ATLANTIC HAS ALREADY ANNOUNCED IMPROVEMENTS TO THE SERVICE AND SOME OF THESE IMPROVEMENTS DEPEND ON THE OUTCOME OF THESE HEARINGS. YOU AND MOST PEOPLE HERE ARE FULLY AWARE OF WHAT THOSE IMPROVEMENTS CONSIST OF AND THEREFORE NO DETAIL IS REQUIRED. HOWEVER MR. CHAIRMAN I WANT TO POINT OUT TO YOU THAT WITH THE PRESENTS DOCKS THAT ARE IN PLACE TODAY I HAVE TAKEN IT UPON MYSELF TO ESTIMATE HOW MANY PEOPLE WE COULD MOVE TROUGH THOSE DOCKS AND WE HAVE ESTIMATED THAT WE COULD MOVE UPWARDS OF SIX MILLION PASSENGERS ANNUALLY WITHOUT CONSTRUCTION OF ANY NEW DOCKS. WE PRESENTLY MOVE UPWARDS OF 1.8 MILLION PASSENGERS ANNUALLY.

PLEASE ONCE AGAIN ACCEPT MY THANKS FOR YET ANOTHER LENGTHY BRIEF BUT THIS MATTER IS OUR FUTURE AND THE FUTURE OF ALL ISLANDERS, OUR WAY OF LIFE AND WE HAPPEN TO LIKE OUR WAY OF LIFE AS IT IS.

RESPECTFULLY SUBMITTED ON BEHALF OF LOCAL 127 of
THE CANADIAN BROTHERHOOD OF RAILWAY
TRANSPORT & GENERAL WORKERS.

SIGNED:
GERARD SEXTON.

[illegible]

22 March 1990

To the Environmental Assessment Panel
Northumberland Strait Crossing Project

Mr. Chairman, Members of the Panel

I am very happy with this opportunity to meet all of you and to let you know of my appreciation for this chance to express my views about the Strait crossing.

For the last couple of weeks, I have done little else than wade through a small mountain of paper in my efforts to gather the most recent available information on the crossing project. Most of the publications I encountered were the reports, reviews, investigations, surveys, studies, supplements, assessments, programmes, etc. etc. put out by Public Works Canada (PWC). A few were published by the Department of Fisheries and Oceans (DFO). The rest of my information came from papers by the P.E.I. Fishermen's Association, and comments from independent private sources.

I found several of those publications well worth reading, but others, notably some put out by PWC, contained too many words and very little substance. There seemed to be too much 'surmising' and 'assuming' and conclusions drawn from shaky premisses. Also I got the impression that there was a foregone conclusion running through the discussions, as if these were only a perfunctory formality to be gone through in order to satisfy a public duty. One can't help but notice an evident bias in favour of a bridge and nothing else. Another curious fact: all the letters addressed to the Environmental Assessment Panel (listed in the Compendium) from the different business organizations (industry, trade, commerce) appear to carry the same repetitious message: "Let's hurry and get the hearings over with so that we can start building that bridge!".

However that may be, to me the real question is: do we have to have a fixed link? and, if so, does it have to be a bridge? Just because the prospect of votes and/or 'a quick buck' seems irresistible to some, does it mean that we are going to let ourselves be carried away by the tide of the self-interest-seekers? What we want is what is good for the Island now, and what will still be good for the Island ten or twenty or thirty years from now.

I would now like to consider some of the options open to our choice. The ferry for instance. Has it been ruled out completely? I know that many people complain about the waiting period. But unless one own a private amphibian vehicle, it is not realistic to expect to get on and off an island without some sort of delay somewhere. The purchase of an extra boat or two might be just what is needed to ease the length of the wait at peak traffic times. Wouldn't the cost of a ferry compare favourably with the cost of, say, a bridge? I read somewhere that 'the' bridge would set the country back at least a billion dollars. And that when 14.5 million Canadians are living under the poverty line.

We already have the advantage of a good ferry system. It could become excellent with the addition of a unit or two to the transport capacity, all without the upheaval that the major construction of a bridge would cause. Marine Atlantic's ferries plying the Strait are comfortable and clean, in one case even luxurious. The service is always courteous. The food is quite acceptable. The washroom facilities are well kept and hygienic. The waters of the Strait do look clean; I have never detected any sign of polluting or littering from the boat.

There seems to be no record of the ferries interfering with fish migrations, spawning and harvesting. Likewise the movements of birds do not seem to be adversely affected by the ferries. Whatever disturbances to the environment may have been caused by the ferries in the past have stabilized a long time ago. The boats keep breaking the ice throughout the winter, which has the effect of producing an earlier clearing of the ice pack from the narrows, which may in turn initiate an earlier warming of the water and benefit the fisheries by hastening spawning and planktonic movement, not to mention an earlier date for the start of the actual fishing activities.

Boats of any sort are always exciting; everybody likes them. The sight, feel, sound, smell of ships have kept writers writing and painters painting for a very long time. Even old ferry boats partake of some of the magic. Our own ferries are no exception. Besides adding a pleasant introduction to the Island for visitors, the ferries give an opportunity for a break in the trip for rest, food, drink, games, bird watching, shopping for souvenirs, walking the dog, listening to local musicians, and taking those special shots of scenery or family which will add credibility to the trip after the return home.

The ferries, through the mere fact of having been there for years, are well adjusted to the lands that they service. Their size and schedules have automatically evolved an automatic balance with the carrying capacity of the highways, parks, beaches and accommodations on the Island. There is no question of any sudden disabilitating discrepancy in the flow with a consequent overload of the facilities, the fresh water system, sewage and waste disposal, etc. (All these by the way need a lot of improvement, but that is another story.) The construction of a megaproject such as a bridge would be sure to cause untold disruption on the above facilities and systems, at least locally.

The operation of the ferry system requires approximately 700 employees regularly, 90% of these residing on the Island. Their salary averages $ 30,000./yr, which means that they contribute about twenty million dollars to the economy of the Island. If Maritime Atlantic's operations were increased, the above figure would increase accordingly. Steady permanent jobs, as opposed to temporary boom jobs, are an important factor of a stable economy.

Climate and safety are closely linked, especially when applied to a marine island at this latitude. The ferries have to cope with winds reaching well above 100 km/hr; with temperatures dropping to minus 30o C.; with rain, snow, fog, freezing rain, ice cakes often very thick to break through, not to mention currents, tides and wave action. In spite of all this our ferries are seldom prevented from docking on first try. Only during the most extreme storms, when the highways have to close to land circulation, do the ferries come to a temporary stop. (When they do, no one can move much anywhere anyway.) There is no denying their versatility and flexibility: if need be obstacles can be avoided, courses can be altered. Not so with a fixed structure. In the case of a delayed crossing, people on board are sheltered; they can be fed, given first aid and kept comfortable for hours if need be. Their vehicles and personal possessions are safe as long as the boat is afloat. There is no record of any ferry sinking in Northumberland Strait.

As is no doubt evident by now, I consider the ferry system as a sound asset. And I ask the question: why scrap a sound asset for a questionable set of unknown quantities and variables?

However, in the event that a fixed link of some kind should become for some reason unavoidable, the best choice would be a rail-tunnel. This option seems to have been almost totally ignored in the PWC discussions, except for this one remark that "a tunnel is a viable alternative to a bridge from a cost point of vue". Interesting! Why talk so much about a bridge then when, from all other aspects, it is decidedly inferior? Would it be that a bridge would have a higher visible profile, create more stir and perhaps bring more kudos and votes?

At any rate, a rail tunnel would have marked advantages over other fixed structures. Once built it would not be visible from the surface and obstruct the view. Unlike a road tunnel it would not need ventilating shafts sticking out of the water in the way of ice in the winter and navigation in the summer. What's more, it has definite possibilities as an esthetic experience. I once travelled the Simplon tunnel under the Alps between Italy and Switzerland and remember the experience with great pleasure.

Tourists would no doubt be attracted by a rail-tunnel. The experience of sitting in one's own car being pulled by a train for 12 km underground would be something special and unique to eastern Canada.

Construction of this rail-tunnel would, as in the case of any fixed link, stress the ecosystem in many ways. The boring of two or three tubes of approximately 14 metres in diameter would mean thousands of tons of material to be removed to some other site. During the construction period there would have to be extra parking for vehicles, extra housing for crews, extra wells to be dug and water to be piped in, as groundwater is the only source of water on the Island and the aquifer in Borden is already salt-infiltrated (and polluted also in Cape Tourmentine). Waste-disposal and sewage would also have to be taken care of. There certainly would be a high environmental price to pay.

The fisheries would be less affected by a rail-tunnel than by any other type of fixed link. There would be no interference with fish migrations, spawning and plankton movement, nor with fishermen's boats and gear.

Once built, a rail-tunnel would have low maintenance requirements confined mostly to the rolling stock. The absence of cumbustion fumes would wave the necessity of an expensive ventilation system. It would not be subjected to surface physical disturbances. It would be the most cost-efficient fixed link to run, with one result being that user-costs could probably be kept at a reasonable level.

There would necessarily be some delay for loading vehicles onto trains. But according to T.W. Kierans, P.Eng. of St.John's, the time required for the actual 15 km crossing would be 15 minutes. No other option can beat that. On a bridge, under ideal weather conditions and a total absence of other vehicles, at a speed limit of 50 km/hr, the crossing would take 18 minutes!

So much for the rail-tunnel, which to me seems to be the only viable second choice option after the ferry. A road-tunnel would have some of the same advantages as the rail alternative, but also many more disadvantages such as a much larger diameter bore, the need for sophisticated ventilation, the necessity for constant patrolling, etc.

And that brings us finally to the option of a bridge. To me the notion of a bridge spanning Northumberland Strait is totally unacceptable. It is an odious abomination. I prefer to ignore it and talk about the weather instead, for a minute or two.

All residents of this Island know what the wind can do when it is gusting on a winter's day along stretches of road unprotected by windbreaks of any kind. Even if the sun is shining one never knows how strong the next gust will be, how suddenly the visibility will become nil, how big will the next drift be across the road that you can't see.

Now please transfer this set of not-at-all unusual conditions to a fifteen km stretch of raised highway, a bridge, resting on the submarine surface by a series of piers. Add the fact that there is not a single tree or hill for kilometers on either side to reduce the fury of the wind. Add again a possibly icy road surface, a probably low temperature, perhaps a network of ice-laden cables overhead, plus the hazard of oncoming traffic in the grip of the same driving difficulties. To these physical factors now add a few psychological ones: the sight of a seemingly endless wind-swept emptiness on all sides; the menace of angry tons of ice battering the piers below; the inevitable thought of: what I am to do if something goes wrong?; where do I go if I have sudden trouble with the car?; what if the wind starts pushing vehicles around across the lanes?; what if I can't see anything all of a sudden?; what if an ice-cast ten feet long falls from the cables above?; what if the road gets blocked by an accident, or a driver gets ill, or I start not feeling well myself? What am I to do, where to go? Fifteen kilometers, or anywhere along that distance, can seem like an awfully long way to terra firma at either end...

Coming back to the here and now, the bridge is definitely out: not only is it a potentially suicidal project, but it bristles with a multitude of other objections. Environment, fisheries, cost, maintenance, tourism, post-boom bust, inflexibility of the structure itself, its viability for years to come, all cry for answers which are not coming.

A mistake in choice now can stand for generations as a reproach to those who did not care enough when they could.

F.E.A.R.O.
B.F.E.E.E.
File Ref:
APR AVR 6 1990
REC'D / REÇU

P.S.
Presented before Panel
Afternoon Friday, 30 March, 1990

P.O. Box 241,
Charlottetown, P.E.I.
C1A 7K5
March 26, 1990

Mr. David Barnes
Chairman,
Environmental Assessment Review Panel,
Charlottetown, P.E.I.

Dear Sir:

Re: Interruption of Vehicle Traffic across Northumberland Strait - Borden - Cape Tormentine Route

---

Thank you for providing this opportunity to bring to your attention, and to focus that attention on the potentially disastrous effect upon this province's citizens, the economy of this province and visitors to this province, should an interruption to vehicle traffic occur. It may be assumed that should the interruption be of a few hours duration the effect should be minimal provided, of course, that interruptions are rarely experienced. The effect will progressively worsen with each passing hour and, should the interruption extend into days, the effect would soon reach the state of a disaster.

My name is Frank J. Storey, a life-time resident of this province. I am more or less a retired citizen.

In 1950, I was President of the Charlottetown Board of Trade. It was in 1950 that the national strike by employees of the Canadian National Railways caused the cessation of ferry service on the Borden-Cape Tormentine Route. Ferry services ceased at 6:00 a.m., 22 August 1950, and was not resumed until the night of 29th August 1950.

On the 24th August 1950, the concerned Government of P.E.I. announced the establishment of the Economic Advisory Board and I was named the Chairman. The Board was instructed to undertake a comprehensive survey of major commodity stockpiles within the province. The result of that survey determined that holdings of essential commodities required for the wellbeing of people and animals would be exhausted within 5 to 7 days. This was a disquieting revelation requiring immediate action.

On 26th August 1950, by order of the Government of this Province, the Office of Emergency Controller of Traffic was established. I was named Emergency Controller of Traffic.

The ferries operated by Northumberland Ferries Limited continued operation on the Wood Island (P.E.I.) - Caribou, (N.S.) route. However, the elimination of railway and vehicle traffic on the Borden-Cape Tormentine route created hectic vehicle traffic conditions at the Wood Island Terminal.

On 25th August 1950, the Guardian newspaper reported the line-up of vehicles awaiting departure was two miles long leading to the terminal at Wood Islands; such was the traffic condition on 26th August 1950, when the Emergency Controller of Traffic, accompanied by the late Graham Rogers who was assigned to the Office, and a S/Sgt. R.C.M.P. Officer, arrived at Wood Islands.

..../2.

With the maximum daily capacity of the ferries departing Wood Islands being 120 motor cars and 28 trucks, we found it would require three to four days to move through the terminal the vehicles

already in the line-up; by assigning a guaranteed reservation on future ferry crossings to each vehicle in the line-up, order was restored.

The system of reservations continued until control was lifted on 30 August 1950, following resumption of operation of the Abegweit from Borden on the night of 29th August 1950. Vehicle traffic through the Caribou Terminal was also controlled.

At Caribou, priority was given trucks carrying important commodities deemed necessary to supplement existing stockpiles, and operators of motor vehicles were advised that return to the Mainland could not be guaranteed for as long as the strike continued.

The effect of the eight-day interruption of vehicle traffic across the Northumberland Strait between Borden and Cape Tormentine would have been a major disaster had not the ferries owned by Northumberland Ferries Limited been in operation; that ferry service, inadequate though it was, did provide the "safety value" as a controllable emergency route.

The timing of the interruption to traffic on the Borden-Cape Tormentine route was fortunate in that it did occur during the summer. The haunting question remains without an answer - "what if such an interruption should occur during winter months when the terminals at Wood Islands and Caribou are blocked by ice?"

It is important to note that the volume of vehicle traffic carried between Borden - Cape Tormentine has vastly increased over the intervening forty years. The number of vehicles departing Cape Tormentine during the period 1 January 1950 through 28 July 1950 was 15,143, (the Guardian issue 2 August 1950). By comparison, in 1989, the busiest day recorded 6,660 vehicles crossing the Northumberland Strait between Cape Tormentine and Borden.

Should the findings of your Board be not unfavourable to the construction of a fixed link between Borden and Cape Tormentine, may I suggest and recommend that the Board:

a) appreciate fully the magnitude of the problems which result when an interruption to the flow of vehicle traffic is experienced;

b) appreciate also that unlike highway traffic overland which may be detoured, there can be no such detour for traffic crossing a fixed link across the Northumberland Strait.

Cognizant of the fact that a prolonged interruption is sure to happen at some times during the life of a fixed link, the Board includes in its findings, and as a condition for its not unfavourable report, that a secure all-season alternative route for vehicle traffic be created and maintained for crossing the Northumberland Strait.

Respectfully submitted,

Frank J. Storey

FJS:nls

Frank J. Storey, C.M., E.D., C.D.

NATURAL HISTORY SOCIETY OF PRINCE EDWARD ISLAND
P.O. Box 2346, Beaconsfield, 2 Kent Street, 3rd Floor
Charlottetown, Prince Edward Island, Canada C1A 8C1

March 31, 1990

Mr. David H. Barnes
Chairman
Environmental Assessment Panel
Northumberland Strait Crossing Project
Federal Environmental Assessment Review Office
Fontaine Building, 13th Floor
200 Sacre-Coeur Boulevard
Hull, Quebec
K1A 0H3

F.E.A.R.O.
B.F.E.E.E.
File/
Ref:
[illegible] 10 1990
REC'D / REÇU

Dear Mr. Barnes:

The Natural History Society of Prince Edward Island was unable to attend the final public hearings regarding the proposed fixed link to Prince Edward Island but would like to express the following comments.

The Society's interest is to ensure that, if a crossing is to be built, it be done with the utmost care for the environment. The reason we supported arguments for an EARP panel was to ensure this be done. The Society's primary concern with the consultation process has been the exclusion of the tunnel concept from consideration as a feasible alternative to a bridge. We feel that this creates a situation where the mandate of ameliorating negative environmental impacts has been arbitrarily limited by the proponent Department. The Society urges you to ensure that this limitation is not imposed in your report to the Ministers of Environment and Public Works by stating that the exclusion of the tunnel created a situation whereby the proponent unfairly limited the scope of possible amelioration of the negative impacts of a fixed link. We further urge that your report recommend that the proponent Department call for tunnel proposals and that these be considered in the environmental evaluation of the proposed fixed link.

The adequacy of the consultants reports on the various aspects of the fixed link proposal have been argued for months. Many of these studies involve modeling or predicting the impacts of various processes on the biological resources that would be potentially at risk should certain scenarios occur. The key words here are modeling and predicting. Neither produces definitive

NATURAL HISTORY SOCIETY OF PRINCE EDWARD ISLAND
P.O. Box 2346, Beaconsfield, 2 Kent Street, 3rd Floor
Charlottetown, Prince Edward Island, Canada C1A 8C1

answers on what will really happen should such an event occur. The amount of weight that can be given also varies with the medium one is working in (e.g. liquid verses solid) and the amount of good data available to test the model or hypothesis. Is it reasonable to provide equal weight to models and predictions of impacts in water when no biological consideration has been given to a land based alternative where the ability to model, predict, and contain problems is better understood?

In closing, the Society urges the Panel members to recommend that the bridge not be allowed to proceed without the consideration of logical land based alternatives.

Sincerely,

Dan McAskill
Treasurer

GETTIN EDWARD

OUR TERRIBLE CHOICE

Respect and value for life are at the root of human conscience. This is the force within us that is more concerned with the well being of the other than with the self. This respect comes from the creative ability to imagine. Only by putting oneself in the place of another creature can one sympathize with it and see its needs and feelings. Once another being is recognized, one cannot avoid through choice, either to help it or to deny it. Without these abilities, these creative gifts, humans would only be instinctive beings like all other animal life on this planet. But it must be considered that with man's gift of image and choice comes power over other animals, and thus responsibility, that can be misused with great and terrible consequence.

His ability to choose was not intended to be wielded over other creatures and other humans for personal gain. Indeed, quite the opposite, humankind was set on this earth to act as steward, to aid in the development of life, and to reflect love back to the source of all life, which some call God. "It is our duty to share and maintain life". This is the job of mankind, the task decreed to all men from the dawn of time.

To guide man in his choices a conscience or set of morals has been implanted at the centre of his being. "What is this recognition, the knowledge within the reach of the scientific and the most childlike? It is reverence for life..." This law is the force within each person pulling towards life and when followed, leads ultimately to joy and freedom from earthly restrictions.

However, as beings of choice, we can override this law within us and strive for dominance over other creatures. Using the creative power to image we can envision ourselves as dictators, choosing not to uphold life and the moral law, but rather to act in our own interests, at the cost of other beings. Contrary to the voice of conscience man chooses to put himself at the centre, rather than the other.

The choice to place the self at the centre is the beginning of a dark end for man. In the state of rebellion, no longer in union with nature man begins to self destruct. By choosing for the benefit of self, all other creatures are denied and separated from this being. That is, in essence, the terrible meaning of true hate: separation from all life.

This state of separation leads in the end to death. Not only death of body, but death of spirit, which is far worse. While alive on earth, a selfish being causes distruction and death all around him. This is evident today in modern society with the deforestation of precious rainforests, in the continual outbreaks of murder and in the inconsideration of society for the Third World countries.

The picture is bleak, and sadly, as choices are made against conscience, that conscience gradually weakens and a spiral effect is set in action. It requires massive will power to return to the way of true life from this state, but it can be done! The choice does lie in the hands of mankind and he has only himself as a barrier. Through faith in the moral law and with great discipline and will man can return to his original state as steward and lover of the earth. "How are we to build a new humanity? Only by leading man toward a true, inalienable ethic of our own, which is capable of further development." If there is to be any hope of life beyond this mortal earth, mankind must strive again for love in its truest and purest sense. Only by moving out of the self and by once more holding sacred all life can there be hope of accomplishing this goal for which we were made. "...this goal cannot be reached unless countless individuals will transform themselves from blind men into seeing ones and begin to spell out the great commandment which is: Reverence for Life."

GOOD EVENING.

It is a privilege and a trust for me to address this Panel and make you aware why I and many of my peers are decisively opposed to "THE LINK" instigated by the Federal Dept of Public Works with its recent Newsletter "Strait Facts" which in fact are distortions and misinformation and therefore totally unacceptsble.

I am totally concerned about the Environment.The projection of 150 thousand extra tourists each year also has me worried not only because of the noise an litter left by uncaring people but also because of the carbon monoxide from these additional cars.Each spring our Womens Institutes pick up hundreds of bags of rubbish from the roadsides.We remember with horror the pollution left after a Drag Car Rally at Oyster Bed Bridge and that Island area is trying to stop these noisy rallies at the present time. A similar case is Guernsey Island when easier access became available.Crowds of people came not to enjoy the Island's peace and beauty but to have a GoodTime at minimum eaxpense leaving litter wherever they went.As a result Guernsey has lost its character as a restful holiday resort.

Projected Industries too would add more defiling for our Island's Barbara Weit River, which is already contaminated by ONE industry.We are already trying to cope with pesticides,discarded junk(including diapers)and plastics in our landfil It takes 10-20 years for plastic bags and 50-80 years for plastic containers to decompose and when such garbage disintegrates we haven't the faintest idea what effect this will have on our water resources.These are already endangered for the water in several Island Communities is undrinkable and we all know that clean water is an essential element in our daily lives. Last year the guest Speaker at our Provincial Tourist Meeting was the renowned Writer-Broadcaster,David Suzuki.He deplored p.c.b's diluted in motor oil,the loss of topsoil,the decline of food crops,the Greenhouse effect,the rise in ocean levels and the demise of the world's rain forests.

He stressed,and I quote,"There is no guarantee that "A LINK" would be environmentally safe for environmental assessments are carried out in a period of from 1-2 years whereas ecological cycles range from 15 to 20 years. Through his books and TV Programs,including "The Nature of Things" we realize that he has become the outspoken conscience of the Nation because ,as he states, "The Environment is All There is." His Producer's (James Murray) Wife and Family and his Parents and sister,Dr Murray, vacationed with us at Dunrovin.

I live in a fishing village where many of the residents depend on lobste and scallop fishing for their livelihood.They are very alarmed about the effect a Bridge would have on their fishing grounds in the Northumberland Strait.Capt.E.T.Pike (now retired) has had 30 years experience with Marine Atlantic and is well aware of the ice conditions each winter and spring in the Strait.As the late Lorne Johnston wrote "I watched these ice packs pile up TWO STORIES high and the terrible unbelievable appaLling destruction this had on the coast.There never was and there never will be any bridge that would remain upright under such pressure."

A Bridge-Causeway structure that blocks normal passage of ice from West to East will cause ice to remain trapped in the western region of the Strait until it has melted.This would affect the area from West Cape to well beyond Borden,an area nearly half the size of P.E.I. The melting process would be measured in weeks.A Halifax Consultant stated "If the Bridge caused the ice to stay longer in the Strait it could delay the opening of the fishing season.Colder water due to ice could affect fish stocks and thick ice could very possibly affect migration patterns and also the tides." The piers and safety barriers would block a percentage of the Strait at the point of crossing and these piers would be constructed RIGHT OVER PRIME SCALLOP BEDS." Certainly there would be a massive disturbance of the sea-bed during such a massive and lengthy construction. I feel very fervently that not only fishermen would suffer but also farmers,tourist operators and others who depend direvtly or indirectly on these industries.The positive results outlined to the residents of Cape Breton,with the advent of a Canso Causeway,never materialized.In fact it has had a negative impact for it has put hundreds of fishermen out of business,closed fish plants,changed the fish migration patterns and made the climate in Western Cape Breton substantially cooler.Cape Breton has a depressed economy,high unemployment,an outgoing migration of youth and a shrinking Population projected, within the next 15 years, to be 130,000 down from 170,000.

To quote Lorne Johnston again "Hopefully the fishermen along the Strait will bring enough pressure to bear on the Government to save this Industry which will amount to billions of dollars in the future long after the astronomical and extravagant Link idea is laid to rest,"

I am a Tourist Operator with over 35 years experience in this Industry.I have catered to Tourists from almost every part of the World during these drcades.Our guests continue to laud the tranquillity,open spaces,uncrowded beaches and the magnetic attraction which our Island has.I too realize that we have a unique way of life with no Coney Island atmosphere,little commercialism,clean air to breathe,Nature Trails to explore,and the kaleidoscope of well-kept homes and gardens.A Tourist from New Hampshire Recently wrote "Don't let them build that stupid Causeway" and another from Ontario included "Just think of the possible disruption of the Strait's environment,the restricted movement of ice,and the hazardous Cargos that have gone across in special Ferry Crossings.What reallly haunts us is the spectre of a disaster which could wipe out altogether or for a very long time a Fixed Link be it a Bridge or Tunnel."I have received countless

such letters

containing similar sentiments. Many of our guests "take a day or two to go around the Cabot Trail" in Cape Breton and this,I feel,would have the same results on P.E.I. should a Link be built.

After all,Tourism has increased from a tiny beginning to its present place in the sun with 740,000 visitors last season including many Japanese who "fell so in love with the Island" that they hosted an "Anne Festival" in Japan last fall.Focal points were an "Anne" from P.E.I.,who opened their First Festival,amid a profusion of peerless Island scenes which were on display there

Nova Scotia's BillCasey,M.P. is pushing for this "Fixed Link".Why wouldn't he? Nova Scotia,along with New Brunswick,would supply all the needed materials- Sand,Gravel,Steel,Granite,Heavy Lumber and Machinery and Expertise.Cities and towns in these Provinces would also benefit for Islanders would "speed away" to these centers,which have a wider variety of goods and services ,to the detriment of Charlottetown,Summerside and other Island Enterprises.

We already have a Ferry Service which employs from 650-1000 people whose purchasing power pours approximately 30 Million each year into the Island economy.This sea voyage is one of the highlights of many vacationers and I can understand this feeling because last fall,as a Tourist,I thoroughly enjoyed the Ferry trip to and from Scotland's Isle of Skye. Tourism has become one of Skye's major industries.

Ferries,,I believe,are a deterrent to crime and we feel more secure with our Ferry System in place. Unemployment is already high on P.E.I. and should these Ferry Employees lose their well-paying jobs,several hundred families could be reduced from their present secure positions to a Welfare status.

The Vice-president of Marine Atlantic recently outlined plans to upgrade this popular mode of transportation.These included a sister ship for "The Abegweit" and an expanded version of "The Vacationland" and the "Holiday Island."plus escalators for these 'Strait Ships.'

The cost of a "Fixed Link" is estimated a ONE BILLION DOLLARS.The interest on this alone would not only pay the yearly Subsidy but would also pay for a new Ferry from time to time.

And who would pay for this LINK MONSTROSITY after the 35 yeears when Islanders would inherit a crumbly concrete bridge due to salt and the elements after a few Bureaucrats would become Millionaires? Tolls no doubt would increase dramatically and Federal Subsidies as well. Certainly it could not possibly be the Federal Government with its colossial Deficit which has resulted in current slashes,to the Provinces, for essential Services such as the Closure of C.F.B..in Summerside, and greatly reduced grants for Educational and Medical needs and other deserving fields.

And who will assume the building of Access Highways,the clean-up of Pollution and the despoiled beaches and Parks,etc.? Make no mustake. This titanic burden would encompass all Islanders including our children and future Generations.

A n independant Expert stated that "one or more accidents with significant environmental consequences could occur during the 100-year life of the proposed Bridgeand crossing such a bridge during fog and stormy weather with gale force winds and 200 kilometers of fetch down the Strait would "be Horrendous." May I suggest consulting a renowned Engineer who knows for he has had years of experience in the Atlantic waters-R.F.Mac Kenzie,45 Cavendish Road,Moncton,N.B.

No business executive is going to invest money in this project without a high return on his/her investment.There are only two sources of revenue-the much talked about Subsidy and Toll Charges.Either the Federal Government will have to increase this Subsidy to maintain solvency and profit margin or Tolls will increase tremendously.

No location where a long Bridge has been built matches the severe Northern climatic conditions of the Northumberland Strait.

Therefore a "Fixed Link" would mean Environmental Harm(oil spills,etc. can happen here) ,Exposure to High Safety Risks,Adverse effects on Farming,Fishing,Tourism,our Way of Life and the Island Economy.

My thanks to the Panel and to the Audience for listening with rapt attention to these vital concerns.

Kay Wood

Mrs Kay Wood
Dunrovin Lodge,Cottages and Farm
Victoria P.O. Box#40
P.E.I. COA 2GO.

PRESENTATION ON FIXED LINK - Presented by Mark Linkletter on behalf of Linkletter Farms.

My main focus this afternoon will be how the fixed link would affect the potato industry on PEI. A lot of what I have to say could equally apply to other industries. Especially if they import goods to or export goods from PEI. But I would like to start off with some general comments on how the fixed link would affect PEI as a whole.

The Island is a beautiful place to live. But there are a few of us, at times, that get a little bit claustrophobic from time to time. After all we are Canada's smallest province. Sometimes we just want to get off the Island for a short time. To a landlubber, the ferry crossing can be quite interesting. But soon the race to catch the boat, and the time required to cross can become drudgery. An unavoidable obstacle to those suffering from claustrophobia. Imagine being able to cross the strait in a matter of minutes.

Frequent ferry travellers know all too well the dangerous situation that arises when drivers race to catch a boat. Risks are taken while passing slow vehicles that put many lives in jeopardy.

PEI has very modern medical facilities. But we all know that ambulances often need to rush patients to the mainland for medical services not available here. With the closing of CFB, and the demise of emergency airlifts the need for a faster link with the mainland is vital. The fixed link will save lives.

Let's turn to industry on the Island. Judging from the media reports on these hearings to date, many speakers have said that they like the Island just the way it is. I feel that a fixed link could only improve the Island way of life. The latest unemployment statistics indicate that 16.2% of the Island workforce is unemployed. We are tied with Newfoundland for the highest unemployment rates in Canada. The next highest province is New Brunswick at 12.7%. Why is there such a difference between New Brunswick's rate of 12.7% and PEI's rate of 16.2%? Is it merely a coincidence that PEI and Newfoundland are the only two provinces joined to the mainland by ferries? I don't think so. Do we have the right to say that we like PEI just the way it is when over 16 % of our workforce is unemployed?
A fixed link would make the Island a more attractive location for new business. It would also allow existing business to be more prosperous. This would provide much needed jobs for Islanders. It would also produce much needed revenue for local governments in terms of tax

dollars. Better services could then be supplied. In short our way of life would improve with a stronger economy.

PEI cannot afford to sit back while the world around us advances in leaps and bounds in the area of communication and transportation. The world grows more and more impatient each year. No longer are we patient to wait for a letter to be mailed to us. We want it faxed. No longer will regular parcel delivery do. We ship parcels by overnight courier. The time barrier between ourselves and the mainland can make the difference between winning or losing in the competitive business world. We must take advantage of what the fixed link has to offer. We must not isolate ourselves from the global business world that is emerging.

As a potato producer I can see some definite advantages the fixed link would have for the Island's potato industry. PEI produces some of the best quality potatoes in the world. We are blessed by Mother Nature with a climate and soil type that is ideal for this commodity. One thing we are not blessed with however is closeness to the marketplace. Each year an average of 20,000 tractor trailer loads have to be shuttled by ferry from the shores of PEI to the mainland.

The 10 mile journey from PEI to the mainland is a very costly and time consuming one for those 20,000 loads of potatoes. --- The crossing itself takes between 45 to 60 minutes each way. Additional time required for lining up and waiting at the terminal requires as much time again. Trucking out of PEI is a continuous battle against ferry schedules, and overcrowded terminals. The Atlantic Provinces Transportation Commission, in a document dated February 1990, estimated that the average time required for truckers to cross the strait is 2 hours each way. For truckers hauling potatoes this represents a total of 4 hours per trip from PEI. Many truckers would feel that this estimate is very low, but I'll use this figure anyhow.

Contrast this to the situation that would occur if a fixed link were constructed. A two way crossing would entail little if any wait time and an actual crossing time of 12 minutes each way for a round trip total of 24 minutes. The fixed link would save 3.6 hours in the shipment of each load of potatoes. It would move us 3.6 hours closer to our markets.

According to the Atlantic Provinces Transportation Commission, it costs $35.00 per hour to have a truck and operator sitting idle. This is a very conservative estimate. This means that if the fixed link were constructed an average of $126 would be saved per load of potatoes shipped. This represents 10% of the cost of freight to most common destinations. At the rate of 20,000 loads per year, 2.5 million dollars would be saved each year. This figure is for the potato industry alone. Similar savings would be achieved by other sectors of the Island economy.

Apart from lower transportation costs the fixed link would produce a greater availability of transportation for potato producers. At certain times of the year PEI experiences a shortage of trucks. Producers find it difficult to meet their sales obligations under these conditions. When there are not enough tractor trailers to go around, it is difficult to attract truckers to come over to PEI when they can pick up a load in New Brunswick or Nova Scotia instead. Why have your truck sitting idle for 4 hours if you don't have to. I can't overemphasize how important it is for potato producers to be able to meet their sales obligations. Customers will put up with late shipments only so many times before they turn to a more reliable source. The fixed link would help to alleviate this problem.

Along the same lines is the possible disruption of ferry services due to a strike. Losses of wages by employees and losses of sales to producers could result. If our customers are forced to find other sources during the strike, there is no guarantee that they will return after the strike is over.

The potato industry would benefit in other ways as well. As many people know, PEI, because it is an Island is able to control the spread of potato diseases. This is done by disinfecting all potato equipment as they enter the Island. A disinfecting station in Albany handles the Tractor Trailer traffic from Borden. This station must be heavily manned to handle the peak periods created by ferry traffic. Currently truckers can look forward to a 15 minute to one hour wait for this service. A fixed link would allow a more even traffic flow, effectively reducing the manpower required at these stations and the wait for truckers. With the wait time reduced, staff would be able to do a more thorough disinfection and freight rates would again be favourably affected.

A fourth advantage of the fixed link is in easier access to supplies required for our operation. Our potato packaging plant requires 35 employees. It would prove very costly either to the plant or its employees if the plant had to shut down while it waits for a repair part. Plastic potato bags and many repair parts have to be obtained from the mainland. The ferry crossing places these items several hours further away than a fixed link would. Inventories of potato bags and repair parts must be kept excessively high to overcome this problem. Local suppliers must keep high inventories as well to satisfy its customers. These high inventories cost money. A fixed link would help to alleviate these problems.

Allow me to summarize what I have said. The fixed link will benefit all Islanders in one way or another:
- Everyone will benefit from faster emergency and recreational access to the mainland.
- Our economy will be strengthened due to greater prosperity of present businesses and the attraction of new businesses to the Island.
- And finally, the potato industry will benefit from lower shipping costs, a more stable supply of tractor trailers for shipping, improved disease control, and stronger support services for agriculture sector.

We cannot afford to pass up this opportunity.

PRESENTATION

TO

ENVIRONMENTAL ASSESSMENT REVIEW PANEL

THE NORTHUMBERLAND STRAIT CROSSING PROJECT

P. E. I. - N. B.

CANADA

BY: GREATER SUMMERSIDE
CHAMBER OF COMMERCE
MARCH 23, 1990

MEMBERS OF THE NORTHUMBERLAND STRAIT CROSSING
REVIEW PANEL ....

THANK YOU FOR THE OPPORTUNITY TO MAKE THIS PRESENTATION ON BEHALF OF THE GREATER SUMMERSIDE CHAMBER OF COMMERCE.

THE GREATER SUMMERSIDE CHAMBER OF COMMERCE IS COMPRISED OF OVER 450 MEMBERS REPRESENTING OVER 300 BUSINESSES IN THE GREATER SUMMERSIDE AREA. THE FACT THAT WE REPRESENT OVER 300 BUSINESSES AND OVER 450 MEMBERS DESERVES SPECIAL MENTION BECAUSE THESE NUMBERS ILLUSTRATE THAT THIS BRIEF REPRESENTS THE VIEWS OF THE MANY .... NOT THE FEW.

THE BUSINESSES WE REPRESENT CONSTITUTE THE BACKBONE OF SOME OF THE COMMUNITIES SITUATED NEAREST THE PROPOSED CROSSING, I. E., ... WILMOT .... ST. ELEANORS ..... AND SUMMERSIDE .... AND THEREFORE ARE AMONG THE MOST DIRECTLY AFFECTED.

DURING THE MONTH OF FEBRUARY 1990 WE CONDUCTED A SURVEY OF OUR MEMBERSHIP REGARDING THE FIXED CROSSING BETWEEN PRINCE EDWARD ISLAND AND NEW BRUNSWICK. I WILL BE MAKING REFERENCE TO THIS SURVEY THROUGHOUT THIS SUBMISSION.

.... PAGE 2

WE HAD AN EXCELLENT RESPONSE TO OUR QUESTIONNAIRE WITH 158 REPLIES FROM OUR MEMBERS AND OF THOSE RESPONDING, 87% STATED THEY WERE IN FAVOUR OF THE FIXED CROSSING.

THE 158 RESPONDENTS ALSO REPRESENT A LARGE CROSS-SECTION OF OUR SOCIETY ON P.E.I. WHICH IS NOT REPRESENTED BY MOST OTHER GROUPS.

WE DO NOT JUST REPRESENT THE RETAIL SECTOR OF OUR AREA BUT A MUCH LARGER, MORE DIVERSIFIED GROUP.

OF THE 158 RESPONDENTS, 39 WERE RETAIL; 41 WERE IN THE SERVICE SECTOR; 5 WERE DISTRIBUTORS; 15 WERE WHOLESALERS; 19 WERE RELATED TO THE CONSTRUCTION INDUSTRY; 19 WERE MANUFACTURERS; 22 WERE PROFESSIONALS AND 22 WERE FROM VARIOUS OTHER SMALLER BUSINESS CATEGORIES.

AS YOU CAN SEE, THE 87% RECOGNIZING THE NEED FOR THE CROSSING, TOUCH ON ALL FACETS OF OUR DAY-TO-DAY CONSUMER LIFE.

... PAGE 3

THE CHAMBER STRONGLY SUPPORTS THIS ENVIRONMENTAL ASSESSMENT AND WE FEEL ALL THE QUESTIONS AND CONCERNS HAVE BEEN ADDRESSED AND THAT THE FINDINGS UNQUESTIONABLY SUPPORT THE CONSTRUCTION OF THE FIXED CROSSING AND WE FULLY AGREE. OUR SUPPORT OF THE FIXED CROSSING IS BASED ON THE FACT THAT OUR MOST HIGHLY RESPECTED AUTHORITIES, SCIENTISTS AND ENVIRONMENTALISTS HAVE STUDIED AND REPORTED TO YOUR PANEL AND THERE HAS BEEN NOTHING REPORTED THAT WOULD GIVE US ANY CAUSE FOR CONCERN AGAINST CONSTRUCTION.

IN OUR MEMBER SURVEY, FULLY 50% OF THE BUSINESSES INDICATED THAT THEY WOULD BE INCREASING THEIR STAFF IF THE FIXED CROSSING WERE CONSTRUCTED AND IN OUR OPINION THIS IS VERY POSITIVE FOR THE FUTURE OF ALL ISLANDERS.

A PORTION OF OUR SURVEY WAS FOR MEMBER COMMENTS - MANY OF THE INDIVIDUAL COMMENTS HAVE A VERY GOOD MESSAGE - A MESSAGE WORTHY OF PRESENTATION TO THIS PANEL.

THEREFORE, I WILL NOW TAKE A MOMENT TO RELATE A CROSS-SECTION OF THE MOST SIGNIFICANT COMMENTS TO YOU.

SOME OF THE OPINIONS IN SUPPORT OF THE CROSSING ARE AS FOLLOWS:

... PAGE 4

... WITH THE LOSS OF VIA RAIL WE FEEL THAT THE LINK IS A MUST!

... WE CANNOT HIDE BEHIND THE FACADE OF "QUALITY OF LIFE" WHILE WE HAVE CHRONIC 15%+ UNEMPLOYMENT. WAITING FOR FOUR HOURS IN FERRY TERMINALS IS NOT "QUALITY OF LIFE".

... THE PROSPERITY OF THE FIXED LINK MUST NOT BE DENIED TO OUR CHILDREN. WITH FREE TRADE, THE ATLANTIC PROVINCES WILL HAVE INCREASED ACCESS TO THE WEALTHIEST MARKETS IN THE WORLD AND THE EASTERN SEABOARD OF THE UNITED STATES.

... THE MOST SIGNIFICANT ECONOMIC DEVELOPMENT IN ISLAND HISTORY.

... WE HAVE CONSIDERABLE CONCERN AND REGARD TO EMERGENCY SERVICE (i.e., AMBULANCE SERVICE), PARTICULARLY IF 413 SQUADRON IS REMOVED FROM SERVICE.

... WE WILL NOT BE "ISOLATED" FROM THE MAINLAND - AND WILL BE ABLE TO ATTRACT PEOPLE AND INDUSTRY WHO WANT TO RELOCATE TO TAKE P.E.I. JOBS - BECAUSE OF THE FERRY.

... YEAR ROUND MOTEL OPERATORS FAVOUR INCREASED ACCESSABILITY FOR NON-SEASONAL TOURISTS. THE LINK WILL STRETCH THE TOURIST SEASON - JUST LIKE A GOOD YEAR IN THE POTATO MARKETS.

... PAGE 5

... STABILIZE THE ECONOMY OF PRINCE EDWARD ISLAND.

... IT WILL MAKE THE ISLAND A MORE FEASIBLE PLACE TO ESTABLISH A BUSINESS.

THE COMMENTS CONTRARY TO THE CROSSING HAVE THESE OBSERVATIONS:

... I FEEL THAT GOAL OF EASE OF ACCESS TO THE MAINLAND FOR THE PERSONAL GAIN OF ISLANDERS IS MORE THAN OFFSET BY THE POTENTIAL DETRIMENT TO THE ISLAND ECONOMY.

... IF THE FIXED CROSSING IS CONSTRUCTED THERE WILL BE A LAY-OFF OF 600 STAFF FOR ONE COMPANY - THE FIXED LINK WILL BENEFIT ONLY A FEW ISLANDERS AND DO HARM TO PRINCE EDWARD ISLAND IN GENERAL.

... I BELIEVE THE BIGGEST BENEFIT WILL GO TO THE DEVELOPERS WHO ARE INVOLVED IN CONSTRUCTING THE LINK. THEIR INTEREST IS IN THE MONEY.

... PAGE 7

A NUMBER OF BUSINESSES REPLIED THAT THEY WOULD BE BETTER ABLE TO SERVE THEIR CUSTOMERS BY WAY OF A BETTER TRANSPORTATION SYSTEM THAT THE FIXED LINK WOULD OFFER.

THE HIGHWAY SYSTEM IS THE BACKBONE OF PRINCE EDWARD ISLAND'S TRANSPORTATION SYSTEM AND ALL THREE OF PRINCE EDWARD ISLAND'S PRIMARY INDUSTRIES DEPEND ON EFFICIENT SERVICES. A FIXED LINK WILL ELIMINATE TRANSPORTATION CONSTRAINTS. IT WILL PROVIDE AN IMPROVED AND EFFICIENT SYSTEM ALONG THE LINES OF COST, RELIABILITY AND TRAVEL TIME WHICH WILL HAVE A POSITIVE EFFECT ON THE SOCIAL AND ECONOMIC WELL BEING OF PERSONS AND BUSINESSES ALL ACROSS THIS ISLAND. WE CONSIDER THAT THE FIXED LINK WILL BE MUCH MORE RELIABLE THAN THE FERRY SERVICE.

DOCUMENTATION IN JULY AND AUGUST 1986 SHOWS THAT TRAFFIC OUT OF BORDEN SHOWED ONLY 70% MOVEMENT WITHOUT DELAYS AND THAT TRAFFIC OUT OF CAPE TORMENTINE DURING THE SAME PERIOD SHOWED ONLY 73% MOVEMENT WITHOUT DELAY.

... PAGE 8

DURING THE WINTER OF 1986-1987 FOR THE PERIOD OF DECEMBER TO MARCH, A TOTAL OF 486 CROSSINGS WERE EITHER DELAYED OR CANCELLED DUE TO THE WEATHER CONDITIONS. STUDIES HAVE PROVEN THAT THE RELIABILITY OF THE FIXED CROSSING DURING ADVERSE WEATHER CONDITIONS (SNOW AND ICE) SHOULD BE BETTER THAN THE RELIABILITY OF THE HIGHWAY SYSTEMS IN BOTH P.E.I. AND NEW BRUNSWICK DURING SIMILAR CONDITIONS.

STUDIES HAVE SHOWN THAT THE TOTAL OF WAITING, LOADING, CROSSING AND UNLOADING REQUIRES APPROXIMATELY 100 MINUTES AS COMPARED TO 15 MINUTES ANTICIPATED FOR THE FIXED LINK CROSSING. THIS MAY NOT SEEM LIKE A LARGE AMOUNT OF TIME TO THE OCCASIONAL PLEASURE TRAVELLER WHO CROSSES TWO OR THREE TIMES PER YEAR, BUT IT IS SIGNIFICANT TO THE INDIVIDUALS AND BUSINESSES WHO USE THE SYSTEM ON A REGULAR BASIS. WHEN YOU PLACE A DOLLAR VALUE ON TIME AS DID THE ATLANTIC PROVINCES TRANSPORTATION COMMISSION IN THEIR REPORT CONCERNING FERRY CROSSING STATISTICS FOR THE FULL 1989 CALENDAR YEAR IT SHOWS THAT HAD A FIXED CROSSING BEEN IN PLACE THERE WOULD HAVE BEEN POTENTIAL COST SAVINGS TO PRIVATE AND COMMERCIAL MOTOR CARRIERS IN THE ORDER OF ABOUT 9.2 MILLION. THAT IS 9.2 MILLION FOR ONE YEAR ALONE!

... PAGE 9

WHEN YOU TALK ABOUT TIME AND COST SAVINGS, IT FITS RIGHT INTO OUR MANUFACTURING AND INDUSTRY SECTOR. ONE OF THE KEY WAYS TO IMPROVE THE FINANCIAL VIABILITY OF OUR PROVINCE IS TO INCREASE THE INDUSTRIAL AND MANUFACTURING BASE.

ONE OF THE REASONS THE GOVERNMENT AND PRIVATE EFFORTS TO DEVELOP A BROADER BUSINESS BASE ON P.E.I. HAS FAILED IS THE TIME AND COST OF TRAVELLING TO MAINLAND CANADA TO DO BUSINESS. UNTIL THIS REAL AND PSYCHOLOGICAL BARRIER IS ELIMINATED, P.E.I. WILL NOT GROW INDUSTRIALLY.

... PAGE 10

REVENUE FROM AGRICULTURE, FISHERY AND TOURISM CANNOT BE EXPECTED TO GROW AND CARRY THE INCREASING DEMANDS OF A GROWING PROVINCE. THEY CANNOT PROVIDE THE STABLE JOB BASE OR THE TAX BASE NEEDED TO DEAL WITH OUR PROVINCIAL DEBT.

AS HAS ALWAYS BEEN THE CASE, THE YOUTH OF P.E.I. WILL BE FORCED TO TRAVEL TO OTHER PROVINCES TO SEEK EMPLOYMENT UNLESS WE CAN PROVIDE STABLE LONG-TERM OPPORTUNITY FOR THEM ON P.E.I.

INDUSTRY AND MANUFACTURING JOBS WILL PROVIDE THAT SECURITY AND POTENTIAL FOR GROWTH NEEDED BY TODAY'S YOUTH.

A FIXED LINK TO THE MAINLAND WILL HELP TO DRAW BUSINESS TO P.E.I. AND HELP EXISTING BUSINESS GROW. EACH TRACTOR TRAILER, EACH VEHICLE, EACH BUSINESS PERSON WHO WISHES TO GO AND RETURN FROM THE MAINLAND LOSES AN AVERAGE OF 85 MINUTES PER TRIP. AGAIN TO THE CASUAL TRAVELLER, THIS IS NOT A SIGNIFICANT FIGURE ... WHY BE CONCERNED ABOUT THREE HOURS OF LOST TIME TWO OR THREE TIMES PER YEAR? THE BUSINESS COMMUNITY, HOWEVER, IS VERY CONCERNED ABOUT LOSING THREE HOURS ALMOST EVERY DAY ... THAT'S ALMOST EVERY DAY ... ON EVERY VEHICLE THAT TRAVELS BACK AND FORTH ON OUR FERRY SERVICE.

... PAGE 11

THE OUT OF POCKET EXPENSES FOR A TRACTOR TRAILER IS APPROXIMATELY $45.00 PER HOUR. EVERY TIME A TRAILER TRAVELS BACK AND FORTH ON OUR CURRENT FERRY SYSTEM - $135.00 IN EXTRA COSTS ARE ADDED TO THE GOODS THAT TRAILER IS CARRYING. THERE ARE HUNDREDS OF TRAILERS CROSSING EVERY DAY. WE ARE SPENDING OR PAYING MILLIONS OF DOLLARS MORE TO SEND OR RECEIVE GOODS AND SERVICES THAN OUR FELLOW CANADIANS. OUR ECONOMY CANNOT CONTINUE TO AFFORD TO GIVE AWAY MILLIONS OF DOLLARS OUR OF THE POCKETS OF P.E.I. CONSUMERS. A FIXED LINK WILL SAVE THIS WASTED MONEY, AND IT WILL ALLOW US TO ATTRACT INDUSTRY AND TO PROVIDE EMPLOYMENT TO AND FOR ISLANDERS!

THE GOVERNMENT HAS INDICATED THAT THE MARINE ATLANTIC EMPLOYEES WOULD BE LOOKED AFTER WHEN THE LINK IS COMPLETED. THE GREATER SUMMERSIDE CHAMBER OF COMMERCE FEELS THIS IS A MINIMUM REQUIREMENT. THE EMPLOYEES SHOULD HAVE PRIORITY ON THE PERMANENT JOBS PROVIDED BY THE FIXED LINK.

BEYOND THIS A REASONABLE PLACEMENT AND COMPENSATION PACKAGE SHOULD BE PRESENTED TO MARINE ATLANTIC PRIOR TO ANY MOVE TOWARDS FIXED LINK CONSTRUCTION.

... PAGE 12

THE CHAMBER ALSO UNDERSTANDS THE CONCERN OF THE TOWN OF BORDEN. IT IS HOPED THAT WITH PROPER PLANNING AND AN OPTIMISTIC APPROACH THAT THE MANY OPPORTUNITIES OFFERED BY THE FIXED CROSSING WILL BE DEVELOPED IN THE BORDEN AREA.

AS WELL, AN ECONOMIC DEVELOPMENT PACKAGE SHOULD BE IN PLACE FOR THE BORDEN-EAST PRINCE AREA WHICH WILL BE THE HARDEST HIT BY THE LOSS OF THE FERRY WORKERS EMPLOYMENT. THE TOWN OF BORDEN SHOULD BE ADEQUATELY COMPENSATED FOR THE REVENUES LOST AS A DIRECT RESULT OF THE TERMINATION OF THE FERRY SERVICE.

THE GREATER SUMMERSIDE CHAMBER OF COMMERCE FEELS THAT THE CONSULTANTS HAVE DONE AN EXCELLENT JOB OF ANSWERING THE PANEL'S SUPPLEMENTARY QUESTIONS. WE BELIEVE THAT RESEARCH TO DATE HAS ESTABLISHED THAT THE ENVIRONMENT WILL NOT BE ADVERSELY AFFECTED. IT HAS BEEN TWO YEARS SINCE THE FIXED LINK PLEBISCITE CONFIRMED ISLANDERS' WISH FOR DIRECT COMMUNICATION WITH MAINLAND CANADA. SINCE THAT TIME THE FIXED LINK PROJECT HAS HAD NUMERABLE DELAYS.

... PAGE 13

SEVERAL PRESENTATIONS TO THIS PANEL OVER THE PAST FEW WEEKS HAVE DEALT WITH THE "ISLAND WAY OF LIFE".

WE RECOGNIZE THERE WILL BE AN IMPACT ON THIS "ISLAND WAY OF LIFE".

THERE IS A SOCIAL IMPACT WITH ANY TRANSPORTATION POLICY -- ANYWHERE IN CANADA -- INCLUDING PRINCE EDWARD ISLAND. BUT WE BELIEVE THE ISLAND IDENTITY, CULTURE, AND ITS TRADITIONS WILL NOT ONLY BE MAINTAINED BUT WILL STRENGTHEN WITH IMPROVED ACCESS TO THE MAINLAND.

WITH OR WITHOUT THE CONSTRUCTION OF THE FIXED LINK, THE ISLAND WAY OF LIFE WILL ALWAYS FACE CHANGES. A FIXED LINK DOESN'T GUARANTEE THESE CHANGES WILL NOT TAKE PLACE.

OUR CHAMBER BELIEVES ANY CHANGES TO THE ISLAND WAY OF LIFE WILL BE POSITIVE ... JUST ASK OUR 16.2% UNEMPLOYED ... OUR LARGE NUMBERS OF SEASONALLY EMPLOYED AND MARGINALLY EMPLOYED WORKERS ACROSS PRINCE EDWARD ISLAND? JUST ASK WHY ARE EXPENSIVELY WELL EDUCATED YOUNG PEOPLE LEAVING IN SEARCH OF JOBS IN MAINLAND CANADA?

... PAGE 14

UNEMPLOYMENT INSURANCE BENEFITS AT $1.2 MILLION PER WEEK ... PER WEEK... IN PRINCE COUNTY ALONE SHOULD NOT BE A GROWTH INDUSTRY ON PRINCE EDWARD ISLAND!

THE GREATER SUMMERSIDE CHAMBER OF COMMERCE FEELS THAT ISLANDERS WILL IMPROVE THEIR WAY OF LIFE BY NOT HAVING THEIR EVERY TRAVEL PLAN TIED TO NUANCES IN THE CONSTANTLY CHANGING FERRY SCHEDULE.

ISLANDERS HAVE PLACED THEIR FAITH IN THEIR ELECTED REPRESENTATIVES AND COMMUNITY LEADERS TO PRESERVE AND STRENGTHEN OUR ISLAND COMMUNITY AND MEET THE CHALLENGES OF PRINCE EDWARD ISLAND IN THE FUTURE.

IN CLOSING, I WOULD LIKE TO THANK THE MEMBERS OF THIS PANEL FOR ALLOWING ME TO SPEAK ON BEHALF OF THE 450 MEMBERS OF THE GREATER SUMMERSIDE CHAMBER OF COMMERCE.

THANK YOU.